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MINISTRY OF AGRICULTURE

MONTHLY REPORT

APRIL, 1937

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MINISTRY OF AGRICULTURE

MONTHLY REPORT

APRIL, 1937.

Mindful of disaster past,
And shrinking at the northern blast,
The fleety storm returning still,
The morning hoar, and evening chill,
Reluctant comes the timid spring.

The weather conditions have improved somewhat since the end of March, but in many districts the land remains in a semi-saturated state and unfit for cultivation. Little spring work has, therefore, been possible as yet, and conditions are very backward for the time of the year. The season will be an unduly late one. Growth has been very slow, and an improvement in pasture lands is eagerly awaited by stock-owners whose supplies of home-grown foods have been severely depleted by the long winter, coupled with the dearness of purchased feeding stuffs.

Turning to the brighter side of the picture, the trade in store and fat cattle has been steadily improving since the commencement of the year, and quite recently prices have spurted to levels much above the highest that have been reached for many years.

It is understood that there is every likelihood of supplies of fat cattle for immediate future requirements being shorter than usual owing to the scarcity of good store cattle in the opening months of the year, the unattractive price for beef then prevailing as compared with the prices for stores, and the rising prices of feeding stuffs.

It is also feared that the breeding stock will have decreased to some extent as a result of the disposal, as stores and beef, of many heifers which would normally be retained for breeding.

A further article relating to the pig industry appears in this issue on page 8, and deals with the distribution of the pig population of Northern Ireland.

AGRICULTURAL CONDITIONS.

AGRICULTURAL CONDITIONS AT 1st APRIL, 1937.

The weather during March surpassed, in violence, all that had previously been experienced this winter, and was indisputably the severest in any winter season for many years. Cold but moderately dry conditions were encouraging signs at the beginning of this treacherous month, but some sleet and snow showers, together with frosts, in this period which covered the first ten days, provided but a mild foretaste of what was to follow. On the 11th, 12th and 13th of March, an exceptionally heavy snow blizzard swept the country, leaving a covering of snow varying from about two to ten feet in depth. Some frost immediately followed the snow storm, but the thaw was not long delayed and subsequent heavy rains hastened the clearance of the snow, which had formed in unusually high drifts on many farms and roads, completely isolating farmsteads and shutting off all communication by road in many districts. The weather of the remainder of the month was in the main wintry, cold dry spells interspersed with showers of rain, sleet and snow, and only at Eastertide did conditions promise a change to springlike weather.

To state that outdoor work on the farm suffered further hindrance would be to minimise matters, and it was only during the brief spells of favourable weather before the snow storm, when some soils were workable, and at Easter, when the drying winds had wrought some improvement in ground conditions, that some slight progress was made with land cultivation. The fairly rapid thaw caused severe flooding in a number of districts, and in heavy soil areas the land was still more or less saturated and unfit for ploughing at the end of the month: much of this work still remains to be completed. On quite a number of farms potatoes and turnips have not yet been removed from the fields. An occasional field of early potatoes, in light soil areas, was planted towards the end of the month, and a start was also made in some districts with the sowing of the oat crop, but, in general, land cultivation is very backward for the time of the year and the outlook is disquieting.

The cold winds and the frosts following the thaw had an adverse effect on grass lands which are invariably very bare, and providing practically no sustenance for live stock. Growth is indeed "conspicuous by its absence" and the "spring" season will be much later than usual this year.

There was a very heavy drain on supplies of home-grown foodstuffs during last month, and on many farms supplies of turnips and fodder are now extremely low. There is, however, every likelihood that the requirements for

the remainder of the season will be met by existing stocks of hay and straw in most instances, whilst good supplies of oats and potatoes are also available. Purchased feeding stuffs remained in strong demand, and prices generally were firm on the month. Supplies of barley meal continued to be very limited, but other meals and cakes were easily obtainable. At the close of the month there was a tendency for maize products to rise to higher levels.

The arctic conditions were most trying on stock-owners, who had a strenuous time attending to sheep and lambs, particularly in mountainous districts. Cattle suffered in condition from the abnormal weather, and although most of the store animals were housed and hand-fed with fodder, roots and meals during the snow period, several deaths occurred. The losses on this account among sheep and lambs were, however, much heavier, especially in hilly and mountainous districts, where many were smothered in the snow drifts. Numerous deaths also occurred among in-lamb ewes and early lambs, and further reports were received of the sudden collapse of many ewes on the point of lambing.

In summing up it may be stated that last month provided as severe a trial for man and beast as could be imagined possible in these latitudes, and had the effect of entirely upsetting the seasonal itinerary of the farmer.

THE CROPS.

WHEAT.—The area of this crop in 1937 is likely to show a considerable decrease from last year in consequence of the continuous unfavourable weather and soil conditions throughout the past winter. No progress was possible with the sowing of spring varieties of wheat during the month just ended. It is learned that fields sown in the Autumn are making poor growth, and that the brairds in many instances are patchy and very backward. It is feared that some fields of autumn-sown wheat will have to be re-ploughed and re-sown, probably under oats.

The threshing of last year's crop has been completed. Small supplies of fair to good quality grain sold off farms last month fetched from 8/6d. to 10/- per cwt.

OATS.—It is reckoned that given suitable weather and improved soil conditions, farmers will, at least, strive to maintain last year's area under this crop. The present average prices for seed oats this year are contrasted with those for the two preceding years in the table on page 42.

Only a small portion of the entire crop now remains unthreshed. Supplies of white oats marketed during March were little changed on the month, and prices, continuing their upward trend, steadily improved and averaged 7/1d. per cwt. over the month, as against 6/9¼d. per cwt. a month ago.

BARLEY.—The difficulty of obtaining supplies of barley meal, and the high costs of feeding stuffs, will influence many farmers engaged in pig production in sowing some of this crop for their own requirements, should circumstances in the near future prove favourable.

FLAX.—It is understood that there have been few enquiries for seed as yet, and it is, therefore, still difficult to obtain even a rough idea of the area that will be sown under this crop this year. There is a growing feeling in many quarters, however, that the area will be rather smaller than in 1936.

The scutching of the old crop has nearly been completed. Smaller quantities were marketed last month than in February, and prices eased further and averaged 9/2¼d. per stone in March, as compared with 9/9½d. per stone in February.

POTATOES.—Only slight progress was made with the sowing of early varieties last month. There has been a well-sustained demand for seed potatoes this year, which suggests that the area under this crop may be increased. The prices for seed are shown on page 42.

The keeping qualities of the tubers in pits and in houses continues rather less satisfactory than usual, and pink rot and souring are stated to be prevalent, principally among the white varieties in pits. Nevertheless, there are fairly large stocks of fair to good quality ware potatoes still on farms, larger quantities being still available than at this time last year, on account of the smaller shipments to Great Britain this season. The lifting of potatoes from the pits was done during the few favourable days at the beginning and the end of last month, and this work is now proceeding apace. There was no difficulty in meeting demands for local and shipping requirements last month, and an increased volume of business was transacted at improved prices.

The following were the quantities shipped weekly, as compared with a year ago :—

1937		Tons	1936		Tons
Week ending.			Week ending.		
March, 6th	...	4,932	March, 7th	...	5,847
„ 13th	...	6,011	„ 14th	...	7,469
„ 20th	...	6,500	„ 21st	...	7,931
„ 27th	...	8,983	„ 28th	...	7,088
April 3rd	...	6,466	April, 4th	...	5,167

The prices paid to growers by the shipping merchants made a steady, though slight, improvement during the month, and for the week ended 3rd April ranged as follow :—

	Bagged.	Loose.
Up-to-Date (Red Soil)	£4-0-0 to £4-5-0	£3-10-0 to £4-0-0
Up-to-Date (Grey Soil)	£4-0-0 to £4-10-0	£3-15-0 to £4-0-0
Arran Banner	£3-10-0 to £4-0-0	£3-10-0 to £3-15-0
Arran Consul	£4-0-0 to £4-10-0	£3-15-0 to £4-0-0
Arran Victory	£3-10-0 to £4-10-0	£3-10-0 to £4-5-0
Kerr's Pink	£3-15-0 to £4-12-6	£3-10-0 to £4-7-6

Increased supplies of potatoes marketed for local consumption last month made firmer rates, the average price per cwt. for all classes being 4/1¼d. as against 3/11⅜d. in February. The principal variety Arran Victory was 1d. dearer at 4/1½d. per cwt., and Kerr's Pink was 2d. dearer at 4/3¼d. per cwt.

TURNIPS.—There have been some further losses through rotting among the generally smaller stocks of roots, and in many cases supplies may not last out before a reasonably good supply of keep is restored.

MANGELS.—The roots have kept well, and have been fed to stock with the result that supplies are running low. In some farms, where supplies of turnips had become depleted rather earlier than usual, mangels filled the breach.

HAY.—Supplies of hay are getting low on some farms, but as a general rule they are considered adequate for future requirements, although the quality is generally only poor to medium. The quantities marketed during the month under review increased further, and prices again moved upward. All classes of upland hay averaged 72/4d. per ton, an increase of 1/6d. on the month, and meadow hay rose by 6/1d. to 55/8d. per ton.

Prices ruling for seeds at the beginning of April are shown on page 42.

LIVE STOCK.

CATTLE.—Outliers are only in poor to fair condition as a rule, although the health of the herds is fairly normal. Most of the stock were housed during the storm, and hand-fed, but the ration was generally limited on account of the shortage of home-grown foodstuffs and the dearness of concentrated feeding stuffs, and this fact, together with the excessive cold temperatures and the dampness of pastures after the blizzard, had a detrimental effect on many animals.

Offerings of store cattle at fairs last month were larger than a month ago, and business was brisk, especially for strong forward cattle of quality, which advanced in price.

Dairy cattle are generally backward in condition, but there have been no outbreaks of abnormal ill-health, and calving proceeded without incident. The milk yield remained low for the time of the year.

Supplies of dairy cattle offered for sale at fairs were of medium dimensions, and trade for the best young dairy cows and fancy heifers was good at firm rates, but for the majority of the stock sales were slower than of late and prices tended easier.

SHEEP.—This winter has proved very hard on ewes, and some which were in poor condition were unable to survive the abnormal weather conditions prevailing at lambing time. Many ewes died just prior to lambing, and dead lambs were fairly common despite the untiring efforts of the flock owners at this difficult time. Losses on this account, and as the result of smothering in snow drifts, particularly in the mountainous districts, were considerable.

Although the rate of mortality among ewes and lambs has been unusually high, the lamb crop is a good one; "twins" have been more common than usual.

There were small offerings of sheep at fairs, and those fit for butchering were in strong request at firm rates.

PIGS.—Smaller offerings of young pigs were shown at fairs last month, and trade for these was, on the general run, only fair at about late rates.

Sows for breeding remained fully equal to the demand, and business in this end showed no tendency to develop. Prices generally ranged from £5 to £10 according to age and type, but the better types of second litter animals made more money.

HORSES.—There is a shortage of good horses, and a keen demand rules for the best animals at firmer rates. The best types of farm horses are selling at from £35 to £55 each, and useful workers at from £20 to £30 each.

MILK.—There was no improvement in the milk yield during the month, which is low for the season of the year. Many farmers were unable to get supplies away to the creameries during the snow period, and others only overcame the difficulties by improvising sleighs. Losses on this account, however, are regarded as small, as farmers churned the milk and otherwise utilised supplies for their own requirements.

The prices paid by creameries for milk delivered last month ranged from $4\frac{1}{2}$d. to $5\frac{3}{4}$d. per gallon, the separated milk being returned to the farmer.

The rate of equalisation payments for milk produced in Northern Ireland and delivered to creameries for the month of February last was 0.57d. per gallon, in order to bring the average price in respect of this month to 6d. per gallon in accordance with the Milk and Milk Products Act (Northern Ireland), 1934.

It should be noted that under the Regulations creameries are required to distribute the equalisation payments in accordance with the butter-fat contents of the milk received from each supplier.

THE COST OF LIVING INDEX FIGURE.

The cost of living index figure at 1st March, 1937, was 51, or the same as that for the previous month. At 1st March, 1936, the figure was 46.

THE MARKETS DURING MARCH.

Carrots and parsnips were marketed in larger quantities last month, but otherwise supplies of the principal vegetables at markets last month were smaller than in February. Except in the case of carrots and parsnips, which were appreciably dearer on the month at 6/7¼d. and 7/1d. per cwt. respectively, price movements were slight. Cabbage were 2d. dearer at 1/7d. per dozen, savoys 1½d. dearer at 1/5¼d. per dozen, cauliflower ½d. dearer at 2/5d. per dozen, while leeks were 1¼d. dearer at 6¾d. per bunch, and parsley ¾d. dearer at 5¼d. per bunch. Garden turnips were selling at about late rates at 1/9d. per cwt.

Farmers' butter was marketed in larger quantities than a month ago, and prices were ¼d. cheaper at 1/2d. per lb. for print butter and 11¼d. per lb. for lump butter.

There were seasonal increases in supplies of eggs last month, and prices were easier. Hen eggs were 2¼d. cheaper at about 6½d. per lb., while duck eggs decreased by 2/2½d. to 9/3½d. per 120.

In the poultry markets there were larger numbers of hens marketed during the month, but chickens and ducks were less plentiful. Hens were selling at about late rates at 1/8d. each, chickens 2½d. dearer at 2/6¼d. each, and ducks 1½d. dearer at 2/2½d. each.

Small lots of unwashed wool were marketed in March, and long wool was 1d. dearer at 11d. per lb., and mountain wool ½d. dearer at 9¼d. per lb.

DISTRIBUTION OF PIGS ON HOLDINGS IN NORTHERN IRELAND.

In the Monthly Report for August, 1936, the pig census returns taken at the 1st June, 1936, were analysed to show the number of holdings on which pigs were kept and also the number of sows kept by individual producers. A further census was taken at the 1st January, 1937, and the returns have been similarly analysed in order to ascertain whether any marked change has taken place since the 1st June, 1936, in the distribution of pigs over the six counties.

It may be convenient, at the outset, to compare the numbers of pigs at the 1st June, 1936, with the numbers ascertained at the 1st January, 1937, in respect of all holdings in Northern Ireland.

Pigs.	1st June, 1936.	1st Jan., 1937.	% Change.
Boars (for service)	1,663	1,657	— 0.4
Sows (for breeding)	56,509	57,171	+ 1.2
Other Pigs—			
Six months old and upwards ..	32,476	43,184	+33.0
Over three and under six months old	170,953	203,545	+19.1
Under three months old	260,053	254,285	— 2.2
Total	521,654	559,842	+ 7.3

It will be observed that substantial increases were recorded in the case of pigs 3-6 months old and 6 months old and upwards, while little change took place in the numbers of boars, breeding sows and pigs under 3 months old. The very slight increase in the number of sows and the actual fall in the number of pigs under 3 months old suggests, however, that there was some slowing down in the rate of increase in the pig population towards the close of 1936.

The relative importance of pig-keeping in each county is indicated in the following table which gives the pig population at the 1st June, 1936, and 1st January, 1937, in each county per 1,000 acres of crops and pasture :—

County	All Pigs.		All Pigs.	
	Total at 1st June, 1936	Total at 1st January, 1937	No. per 1,000 acres of crops and pasture at 1st June, 1936	No. per 1,000 acres of crops and pasture at 1st January, 1937
Antrim ..	128,988	139,319	254.5	274.9
Armagh ..	65,788	68,532	238.9	248.9
Down ..	122,501	136,183	241.7	268.7
Fermanagh ..	38,289	37,936	123.5	122.4
Londonderry	79,959	87,675	224.0	245.6
Tyrone ..	86,129	90,197	165.5	173.3
Northern Ireland	521,654	559,842	210.7	226.1

Except in the case of County Fermanagh the pig population at the 1st January, 1937, in each county showed an increase on the figure at the 1st June, 1936. It will also be seen that Antrim and Down lead not only numerically, but also in the number per 1,000 acres of crops and pasture.

In the following table the sow population in each county at the 1st June, 1936, and 1st January, 1937, is shown per 1,000 acres of crops and pasture.

County	At 1st June, 1936	At 1st January, 1937	Number of sows per 1,000 acres of crops and pasture.	
			At 1st June, 1936	At 1st January, 1937
Antrim ..	13,438	13,556	26.5	26.7
Armagh ..	6,354	6,339	23.1	23.0
Down ..	14,133	14,359	27.9	28.3
Fermanagh ..	3,868	3,689	12.5	11.9
Londonderry ..	9,664	9,936	27.1	27.8
Tyrone ..	9,052	9,292	17.4	17.9
Northern Ireland	56,509	57,171	22.8	23.1

It will be observed that the number of sows increased in every county except Armagh and Fermanagh, and that the numbers per 1,000 acres of crops and pasture were greatest in counties Down and Londonderry.

The following table gives the number of holdings over 1 acre in each county, and also the number and percentage of such holdings on which pigs were

kept as at 1st June, 1936, and also at 1st January, 1937. The number of pigs on holdings of less than 1 acre is insignificant.

County	Holdings over 1 acre.	Holdings on which pigs were kept. No.		Holdings on which pigs were kept. %	
		1st June, 1936	1st Jan., 1937	1st June, 1936	1st Jan., 1937
				%	%
Antrim ..	16,263	7,940	7,846	48.8	48.2
Armagh ..	15,476	5,742	5,538	37.1	35.8
Down ..	19,991	7,033	6,986	35.2	35.0
Fermanagh ..	10,721	5,079	4,547	47.4	42.4
Londonderry ..	11,623	6,136	5,707	52.8	49.1
Tyrone ..	20,071	9,368	9,196	46.7	45.8
Northern Ireland ..	94,145	41,298	39,820	43.9	42.3

It will be noted that except in counties Fermanagh and Londonderry the position in each county at the 1st January, 1937, was little changed as compared with the 1st June, 1936. The total number of pig-keepers fell to slightly under 40,000, the proportion in relation to total holdings (over 1 acre) per county being greatest in Londonderry and Antrim, and smallest in Down and Armagh.

The distribution of the sow population as at 1st June, 1936, and 1st January, 1937, is shown in the following table, in which the number of holdings (over 1 acre) in each county on which pigs were kept is compared with the number keeping sows.

County.	Holdings over 1 acre on which pigs were kept.		Holdings over 1 acre on which sows were kept.			
			1st June, 1936		1st January, 1937	
	1st June, 1936	1st Jan., 1937	No.	Percentage	No.	Percentage
Antrim ..	7,940	7,846	4,507	56.8	4,506	57.4
Armagh ..	5,742	5,538	2,836	49.4	2,802	50.6
Down ..	7,033	6,986	4,674	66.5	4,674	66.9
Fermanagh	5,079	4,547	1,992	39.2	1,902	41.8
Londonderry	6,136	5,707	3,398	55.4	3,415	59.8
Tyrone	9,368	9,196	4,223	45.1	4,454	48.4
Northern Ireland	41,298	39,820	21,630	52.4	21,753	54.6

It will be observed that percentage gains were recorded in the case of every county, the figures for counties Londonderry and Tyrone showing appreciable increases.

The total sow population of approximately 57,000 was distributed over slightly less than 22,000 holdings, giving an average of between 2 and 3 sows per holding. In the following table are given, by counties, the numbers of holdings (over 1 acre) with varying numbers of sows expressed as percentages of the total number of holdings on which sows were kept.

No. of Sows kept.	Antrim.		Armagh.		Down.		Fermanagh.		London-derry.		Tyrone.		Northern Ireland.	
	1st June, 1936	1st Jan., 1937	1st June. 1936	1st Jan., 1937	1st June, 1936	1st Jan., 1937	1st June, 1936	1st Jan., 1937	1st June, 1936	1st Jan., 1937	1st June, 1936	1st Jan., 1937	1st June, 1936	1st Jan., 1937
One	31.9	32.1	48.2	47.7	31.6	30.0	48.6	47.3	33.9	32.4	45.8	46.6	38.5	38.0
Two	27.7	27.2	29.2	27.9	25.1	28.0	30.3	32.6	28.1	26.8	30.4	29.1	28.2	28.3
Three	17.2	16.6	10.7	12.2	16.4	17.2	13.0	11.9	15.5	17.2	11.9	12.4	14.5	15.0
Four	10.1	10.5	4.9	5.2	10.0	8.8	3.9	4.2	8.2	9.1	5.6	5.9	7.6	7.7
Five	4.5	4.5	2.8	2.4	5.0	4.9	1.8	1.8	4.9	4.9	2.7	2.5	3.9	3.7
Six	2.9	3.2	1.6	1.4	3.5	3.2	1.0	0.6	3.0	3.2	1.4	1.3	2.4	2.4
Seven	1.4	1.3	0.7	0.6	1.7	2.1	0.3	0.4	2.1	2.2	0.4	0.6	1.2	1.3
Eight or more	4.3	4.6	1.9	2.6	6.7	5.8	1.1	1.2	4.3	4.2	1.8	1.6	3.7	3.6
Total	100	100	100	100	100	100	100	100	100	100	100	100	100	100

While a comparison of the figures for the individual counties at the two census dates does not reveal any uniform change in the number of sows kept per holding, the figures as a whole show that the tendency is towards an increase in the number of sows per holding. Roughly speaking, two-thirds of the holdings on which sows are kept have one or two sows, and four-fifths have one, two or three sows. Holdings with one or two sows preponderate in counties Armagh, Fermanagh and Tyrone.

The most recent figures which are available to show the distribution of pigs according to size of holding are those for the census taken at the 1st June, 1935. The total pig population at that date was 457,878, the number of sows being 47,436. In the following tables the total pig population, and also the sow population, in each county at the 1st June, 1935, is shown on a percentage basis according to varying sizes of holdings.

Percentage number of pigs on varying sizes of holdings in each county at the 1st June, 1935.

Class of Farm (statute acres)	Antrim	Armagh	Down	Fermanagh	Londonderry	Tyrone	Northern Ireland.
	%	%	%	%	%	%	%
0- 1	1.1	1.1	.5	1.0	1.2	1.1	1.0
1- 5	1.1	3.4	1.7	1.1	1.6	1.0	1.6
5- 10	2.3	9.6	3.8	2.9	3.1	2.9	3.8
10- 15	3.9	10.2	4.9	5.4	5.8	5.7	5.6
15- 30	16.5	27.6	19.8	23.8	18.5	21.6	20.4
30- 50	22.9	22.1	23.6	27.0	21.6	24.4	23.3
50-100	33.0	16.1	30.6	26.6	28.1	29.3	28.5
100-200	12.6	4.8	10.2	7.6	12.9	10.6	10.4
200-500	2.6	1.6	2.5	2.2	4.3	2.0	2.6
Over 500	.6	2.1	.7	1.1	1.0	.3	.8
Not on farms	3.4	1.4	1.7	1.3	1.9	1.1	2.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

It will be noted that, except in counties Armagh and Fermanagh, the proportion was greatest on holdings of from 50 to 100 acres. Taking Northern Ireland as a whole, slightly less than three-fourths of the pig population at the 1st June, 1935, was on holdings of between 15 and 100 acres.

Percentage number of sows on varying sizes of holdings in each county at the 1st June, 1935.

Class of Farm (statute acres)	Antrim	Armagh	Down	Fermanagh	Londonderry	Tyrone	Northern Ireland
	%	%	%	%	%	%	%
0- 1	.5	.4	.3	.2	.4	.4	.4
1- 5	1.1	2.7	1.3	.4	.9	.6	1.1
5- 10	2.0	9.2	3.2	1.4	2.4	1.8	3.1
10- 15	3.7	10.2	5.3	3.4	5.9	4.2	5.3
15- 30	17.9	27.4	21.1	22.8	19.5	19.2	20.6
30- 50	23.5	22.2	25.6	30.2	22.3	25.6	24.4
50-100	33.2	18.3	29.9	29.1	28.0	32.3	29.4
100-200	12.8	4.1	9.7	8.8	14.4	12.8	11.1
200-500	2.9	1.7	2.2	2.5	4.5	2.1	2.7
Over 500	.5	3.5	.8	1.0	1.0	.3	1.0
Not on farms	1.9	.3	.6	.2	.7	.7	.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0

As would be expected, the figures in this table correspond very closely with those in the previous table, and show generally that the holdings between 50 and 100 acres accounted for the greatest number of sows, and that almost 75 per cent. of the total sow population was concentrated on holdings varying from 15 to 100 acres.

The following table shows the pig population in each county at various dates since 1925, the figures in brackets indicating the population as a percentage of the total at each census date:—

County	At 1st June, 1925	At 1st June, 1930	At 1st June, 1934	At 1st June, 1935	At 1st June, 1936	At 1st January, 1937
Antrim	32,997 (29.3)	52,541 (24.3)	91,132 (24.0)	111,770 (24.4)	128,988 (24.7)	139,319 (24.9)
Armagh	13,579 (12.1)	24,863 (11.5)	48,423 (12.7)	56,914 (12.4)	65,788 (12.6)	68,532 (12.2)
Down	19,656 (17.5)	38,567 (17.8)	79,022 (20.8)	102,928 (22.5)	122,501 (23.5)	136,183 (24.3)
Fermanagh	11,135 (9.9)	18,464 (8.5)	28,498 (7.5)	33,010 (7.2)	38,289 (7.4)	37,936 (6.8)
Londonderry	14,793 (13.2)	36,863 (17.1)	62,820 (16.5)	73,041 (16.0)	79,959 (15.3)	87,675 (15.7)
Tyrone	20,252 (18.0)	45,017 (20.8)	70,453 (18.5)	80,215 (17.5)	86,129 (16.5)	90,197 (16.1)
Northern Ireland	112,412	216,315	380,348	457,878	521,654	559,842

The percentage figures, in brackets, for County Down show a steady rise from 17.5 to 24.3 over the period, while in counties Fermanagh and Tyrone the trend is in the opposite direction. The corresponding figures for County Armagh are fairly constant, and the same may be said of the figures for counties Antrim and Londonderry since 1930.

The following table shows the percentage number of pigs on varying sizes of holdings in Northern Ireland at the 1st June in each of the years 1925, 1930, 1934 and 1935.

Class of Farm (statute acres)	At 1st June, 1925	At 1st June, 1930	At 1st June, 1934	At 1st June, 1935
	%	%	%	%
0- 1	1.1	.9	.9	1.0
1- 5	1.7	1.4	1.5	1.6
5- 10	4.8	4.2	3.8	3.8
10- 15	6.9	6.6	5.6	5.6
15- 30	23.7	24.2	21.3	20.4
30- 50	23.6	24.6	23.2	23.3
50-100	25.2	26.1	27.9	28.5
100-200	8.1	7.9	10.3	10.4
200-500	2.8	2.1	2.6	2.6
Over 500	.4	.4	.9	.8
Not on farms	1.7	1.6	2.0	2.0
Total	100.0	100.0	100.0	100.0

The outstanding feature of this table is the progressive increase in the proportion of pigs kept on holdings between 50 and 100 acres. Taken as a whole, the figures indicate that the increases in the pig population have been relatively greater on the larger holdings, i.e., from 50 acres upwards. If the figures for holdings between 15 and 200 acres are grouped together the totals will be found to correspond very closely, varying from 80.6 per cent. in 1925 to 82.8 per cent. in 1930.

LEAFLET No. 44.

(*Revised* 1937).

GOVERNMENT OF NORTHERN IRELAND.

MINISTRY OF AGRICULTURE.

RESULTS OF CROP EXPERIMENTS, 1936.

During the year 1936 field experiments, designed to ascertain the cropping capacity and suitability for Northern Ireland of certain varieties of oats, wheat, barley and potatoes were carried out in the different counties. The summarised results of these tests, together, in some cases, with those from corresponding tests carried out during previous years, are given in this leaflet.

The detailed results of all the experiments carried out by the Agricultural Instructors in 1936, both with crops and with live stock, will be found in the Annual Reports published by the respective County Committees of Agriculture and obtainable free on request from the Secretaries, or Agricultural Organisers, of these bodies.

OAT VARIETY TESTS.

Two series of tests were arranged. In one series, certain varieties which were considered suitable for the better classes of soils were tested under comparable conditions, while in the other series, varieties which suit the poorer soils in hilly districts were included.

Varieties suitable for good soils :—For this series of tests, a selection of six varieties for each centre was made from a list of eight varieties prescribed for testing. The varieties included those which in previous trials had given the most promising results, and also new varieties and strains, some of which were produced at the Ministry's Plant Breeding Station. The names of the varieties, and the yields of grain and straw produced by each at the different centres, are given in Table I.

TABLE 1.—YIELDS PER STATUTE ACRE.

District	King		Crown		Stormont Arrow		Utility		Elder		Early Miller		Stormont Iris		Victory	
	Grain	Straw	Grain	Straw	Grain	Straw	Grain	Straw	Grain	Straw	Grain	Straw	Grain	Straw	Grain	Straw
	c. qr.	cwt.	c. qr.	cwt.	c. qr.	cwt.	c. qr.	cwt.	c. qr.	cwt.	c. qr.	cwt.	c. qr.	cwt.	c. qr.	cwt.
* Kells ..	—	—	—	—	16 2	32	18 0	49	—	—	11 0	31	15 0	28	15 2	57
1 Muckamore	34 1	56	34 3	54	34 3	66	26 3	58	—	—	31 3	68	33 3	62	—	—
2 Armagh ..	26 0	38	29 3	43	29 3	53	23 0	47	30 0	48	26 3	37	—	—	—	—
3 Newtownards	17 1	23	21 0	23	19 1	25	18 0	23	—	—	18 1	23	—	—	18 0	22
3 Banbridge ..	16 0	31	18 0	31	16 1	30	18 1	35	8 2†	35	13 1	24	—	—	—	—
4 N'townbutler	—	—	18 1	41	20 2	43	13 1	44	21 3	42	24 3	36	—	—	23 2	43
5 Coleraine ..	17 1	23	20 1	21	19 2	28	20 3	28	—	—	18 2	23	—	—	18 3	27
6 Omagh ..	—	—	22 0	33	23 0	32	17 2	26	26 3	34	22 0	31	—	—	19 0	27
6 Fyfin ..	19 0	21	19 0	19	16 2	21	18 0	29	19 0	24	15 2	22	—	—	—	—
6 Caledon ..	18 2	60	25 0	68	24 0	68	21 1	76	24 0	62	16 3	54	—	—	—	—
Averages :																
10 centres ..	—	—	—	—	**22 0**	**40**	**19 2**	**41**	—	—	**19 3**	**35**	—	—	—	—
9 centres ..	—	—	**23 0**	**37**	**22 2**	**41**	**19 3**	**41**	—	—	**20 3**	**35**	—	—	—	—
7 centres ..	**21 1**	**36**	**24 0**	**37**	**22 3**	**42**	**20 3**	**42**	—	—	**20 0**	**36**	—	—	—	—
6 centres ..	—	—	**22 0**	**39**	**21 3**	**41**	**18 2**	**43**	**21 3**	**41**	**19 3**	**34**	—	—	—	—
4 centres ..	—	—	**20 1**	**29**	**20 2**	**32**	**17 1**	**30**	—	—	**20 3**	**28**	—	—	**19 3**	**30**
2 centres ..	—	—	—	—	**25 2**	**49**	**22 1**	**53**	—	—	**21 1**	**49**	**24 1**	**45**	—	—

* Counties : **1** Antrim, **2** Armagh, **3** Down, **4** Fermanagh, **5** Londonderry, **6** Tyrone.

† Plot damaged by birds.

Since the eight varieties were not included at all centres, it is impossible to give the average yields in respect of all varieties at all centres, but the averages have been determined for groups of varieties which were represented at the numbers of centres indicated at the foot of the table. For example, Stormont Arrow, Utility and Early Miller were each included at 10 centres, and the average yields produced by these three varieties at these centres are given in line 1 of the averages at the foot of the table. Again, Crown, Stormont Arrow, Utility and Early Miller were each included at 9 centres, and the average yields produced by these varieties at these centres are given in line 2 of the averages, and so on.

It will be observed from these averages that the variety Crown has given consistently high yields and that at most centres it proved to be superior to other varieties. This oat can be relied on to produce heavy yields of grain when grown on the better classes of soils.

Stormont Arrow has also given high average yields which are almost equal to those obtained from Crown. This variety gave the heaviest average yields in last year's trials. Stormont Arrow, which was raised at the Ministry's Plant Breeding Station from a cross between Black Potato and Victory, has short, stiff straw and is not so liable to lodge as other varieties.

King and Victory are two further varieties which will produce satisfactory crops on land in good condition.

Early Miller was included in these trials for the first time last season and has given good average yields. This oat was raised by the Scottish Plant Breeding Station and is of the Potato type. As its name indicates it ripens early and for this reason it may prove to be suitable for growing in the later of the districts in which oats of the Potato type are commonly grown. Early Miller is fairly resistant to lodging and has white, plump grain.

Stormont Iris is another new variety which ripens early. It was produced at the Ministry's Plant Breeding Station from a cross between Supreme and Victory. In the previous year's trials and again in last season's tests it produced heavy yields.

The other varieties, Elder and Utility, are of the Potato type, and have also given good yields. The yields from Elder at the Armagh and Omagh centres were better than those from any other variety grown at these centres.

While the results obtained from any one year's trials indicate the cropping capabilities of the varieties included, it is only when the results from tests carried out over a number of years are considered that it is possible to compare the varieties with each other in regard

to their yielding capacity. Since its first inclusion in these variety trials in 1929, Stormont Arrow has been grown alongside Crown at 96 centres, and the true average yields obtained from these centres in respect of these two varieties are given in Table 2. During the same period, Crown, Stormont Arrow and King were grown at 58 centres, and the true average yields obtained from these varieties are given in the second line of figures of the Table, and so on for Victory and McGillsmith Potato.

TABLE 2.—TRUE AVERAGE YIELDS PER STATUTE ACRE.

No. of Centres and years of trials	Crown		Stormont Arrow		King		Victory		McGillsmith Potato	
	Grain	Straw	Grain	Straw	Grain	Straw	Grain	Straw	Grain	Straw
	c. qr.	cwt.	c. qr.	cwt.	c. qr.	cwt.	c. qr.	cwt.	c. qr.	cwt.
96 (1929-1936)	22 2	33	21 2	36	—	—	—	—	—	—
58 (1929-1936)	22 1	33	21 2	33	21 1	33	—	—	—	—
51 (1929-1936)	20 2	33	20 0	35	—	—	20 0	33	—	—
53 (1929-1935)	22 2	33	21 3	35	—	—	—	—	20 0	35

It will be noted from the average yields obtained that Crown has been slightly superior to Stormont Arrow. These two varieties have given consistently high yields throughout all these trials, but at most centres Crown gave slightly the higher yield of grain. The results obtained when Crown, Stormont Arrow and King are compared at 58 centres show that Crown again gave the highest average yield of grain, with Stormont Arrow second and King not far behind. The average yield of grain obtained from the 51 centres at which Crown, Stormont Arrow and Victory were grown was again highest for Crown, while the yields obtained from Stormont Arrow and Victory were similar. McGillsmith Potato was grown alongside Crown and Stormont Arrow at 51 centres from 1929 to 1935, and the results obtained from all these centres show that the average yield of grain from Crown was $2\frac{1}{2}$ cwt. per acre higher, and the average yield from Stormont Arrow $1\frac{3}{4}$ cwt. per acre higher, than from McGillsmith Potato.

The results from these eight years' trials confirm the conclusions drawn from individual year's results, namely, that where the land is in good condition it is generally possible to obtain greater yields from the newer varieties and strains than from those of the Potato type.

Varieties suitable for poorer soils in hilly districts :—In these trials, the object was to obtain information as to the cropping

capabilities of some of the varieties likely to succeed best when grown on the poorer soils in mountainous districts. Six varieties were grown at all centres where the tests were conducted. The varieties included an oat raised at the Ministry's Plant Breeding Station from a cross between Potato and Sandy, and now known as Stormont Kern; a selection of a short-grained type of Tyrone Tawny, made and bulked at the Plant Breeding Station, Stormont; a selection of Sandy, called Gordon Sandy; and the varieties Poland, Utility and McGillsmith Potato.

Particulars of the results obtained per statute acre from each of the 9 centres at which the tests were carried out, along with the average yields from these centres, are given in Table 3. The average yields from 5 centres in the previous year's trials where similar varieties were grown, along with the true average yields for both years' tests at 14 centres, are also given in the Table.

Poland gave the highest average yield in respect of both years' tests. This variety is useful for exposed situations and for poor cultural conditions generally. It is, however, late in ripening.

The variety, Stormont Kern, gave consistently high yields in both years' trials and, with the exception of Poland, proved to be superior in yield to the other varieties tested. It ripens earlier than Poland and may, on this account be a valuable substitute for that variety in districts where Poland is widely grown.

Gordon Sandy had given good yields in previous trials, and also yielded well in those conducted during the past two seasons in which it was third in yielding capacity.

The true average yield obtained from the short-grained type of Tyrone Tawny in respect of both years' trials was equal to that obtained from McGillsmith Potato and from Utility. Tyrone Tawny is very useful for growing in poor soils and is characterised by great stooling capacity. The short-grained type has shorter and plumper grain than that of the ordinary Tawny in cultivation.

Farmers who desire seed of any of the varieties mentioned in either of these series of trials should consult the Agricultural Instructor for the district for information regarding sources of supply of seed.

Oat Extension Plots : —As in previous years, quantities of specially selected seed oats were grown in 1936 at centres in the different counties under the supervision of the Agricultural Instructors. The varieties grown were as follows :—King, Crown, Victory, Stormont Arrow, Stormont Iris, Utility, Potato, Stormont Kern, Gordon Sandy, Stormont Poland, and Short-grained Tyrone

TABLE 3.—YIELDS PER STATUTE ACRE.

District.	McGillsmith Potato			Utility			Short-Grained Tyrone Tawny			Gordon Sandy			Stormont Kern			Poland		
	Grain		Straw	Grain		Straw	Grain		Straw	Grain		Straw	Grain		Straw	Grain		Straw
	c.	qr.	cwt.	c.	qr.	cwt.	c.	qr.	cwt.	c.	qr.	cwt.	c.	qr.	cwt.	c.	qr.	cwt.
*1 Larne ..	26	2	49	25	2	38	27	0	36	23	0	43	25	0	39	26	3	40
2 Crossmaglen ..	16	0	†—	16	0	—	12	0	—	13	3	—	14	2	—	16	0	—
3 Warrenpoint ..	15	2	23	13	1	22	16	1	29	13	3	25	16	1	28	15	1	27
3 Newcastle ..	18	1	24	19	2	21	21	1	24	24	3	31	25	1	27	22	1	26
4 Ballinamallard ..	13	2	21	13	0	22	15	1	24	15	0	22	17	0	23	16	3	21
5 Swatragh ..	19	0	32	20	0	34	19	0	32	19	0	29	17	0	28	17	0	34
5 Claudy	20	0	40	17	2	31	19	0	33	21	0	30	20	0	30	20	3	37
5 Bellaghy ..	20	3	31	21	1	27	15	3	33	20	0	24	19	2	26	22	2	36
6 Dromore ..	16	2	35	18	0	35	20	1	34	21	1	38	20	0	34	20	0	38
6 Strabane ..	15	1	24	13	2	21	17	3	29	17	1	32	15	0	25	18	0	38
Average Yields : 10 centres, 1936 ..	**18**	**0**	**31**	**17**	**3**	**28**	**18**	**1**	**30**	**18**	**3**	**30**	**18**	**4**	**29**	**19**	**2**	**33**
5 centres, 1935 ..	**17**	**1**	**39**	**17**	**2**	**37**	**16**	**2**	**37**	**17**	**2**	**40**	**18**	**1**	**37**	**18**	**1**	**43**
True Average Yields : 15 centres, 1935-36	**17**	**3**	**34**	**17**	**3**	**31**	**17**	**3**	**33**	**18**	**2**	**34**	**18**	**3**	**32**	**19**	**0**	**37**

* Counties : **1** Antrim, **2** Armagh, **3** Down, **4** Fermanagh, **5** Londonderry, **6** Tyrone.

† Yields of straw not available from this centre.

Tawny. The names and addresses of the farmers with whom the plots were located may be had on application to the Agricultural Instructor.

The produce of these plots is available at a reasonable price to farmers for sowing in 1937. Those desiring a change of seed oats, or wishing to test one or more of these varieties on their farms, are advised to avail themselves of this opportunity of obtaining supplies of pure seed.

As the quantities of seed from these extension plots are strictly limited, early application for supplies should be made to the County Agricultural Instructor, who will advise in regard to the most suitable varieties and assist in obtaining supplies of seed.

WHEAT VARIETY TESTS.

Wheat variety tests were again carried out during the past season. Six varieties, including a new variety called Little Tich which had not been previously included in these trials, were under test, and the average results obtained from 6 centres at which all the varieties were included are given in Table 4. For comparison purposes the average yields obtained in the trials carried out in 1935, along with the true average yields in respect of both years' tests, are also given in the Table.

TABLE 4.—AVERAGE YIELDS PER STATUTE ACRE.

Variety	Average yields in 1936 (6 centres)		Average yields in 1935 (8 centres)		True Average yields 1935 and 1936 (14 centres)	
	Grain	Straw	Grain	Straw	**Grain**	**Straw**
	c. qr.	cwt.	c. qr.	cwt.	**c. qr.**	**cwt.**
Queen Wilhelmina	19 2	32	25 3	34	**23 0**	**33**
Victor ..	16 3	30	24 0	32	**20 19**	**31**
Squarehead's Master ..	16 2	29	23 0	34	**20 4**	**32**
Yeoman II.	17 2	28	21 3	31	**20 0**	**30**
Redman ..	16 0	30	22 3	31	**20 0**	**30**
Little Tich ..	13 3	28	—	—	—	—

The yields obtained at most centres in the 1936 trials were lower than those in the previous years, and, consequently, the average yields show a general decrease as compared with the averages in

1935. It will be noted that, as in the 1935 trials, the variety Queen Wilhelmina gave the highest average yield. This variety has consistently given high yields in these trials, and is one of the most prolific wheats in general cultivation. It produces a large, plump, white grain, with long straw of moderate strength. It can be relied on to produce heavy yields when grown on the better classes of soils.

Victor gave yields second to Queen Wilhelmina in the average of the two years' tests. This variety produces a good sample of small, thin-hulled grain, and straw of moderate length which stands well.

Squarehead's Master has given consistently good average yields in all the trials carried out. This is a well-known and popular variety that can be depended on to produce satisfactory crops under a wide range of soil conditions.

Yeoman II, which is an improved type of the variety Yeoman, and Redman have given similar yields in respect of the average of the two years' trials. The variety Redman was included for the first time in the 1935 tests. It has red, plump, round grain, and long straw which resists lodging well.

The new variety, Little Tich, gave the lowest yields, but further trials with this variety will be necessary before an opinion as to its suitability for Northern Ireland conditions can be given.

BARLEY VARIETY TESTS.

Barley meal is an ideal food for pigs, and its inclusion in the rations fed to the finishing stage encourages the production of bacon of good quality having white, firm fat. In the production of bacon pigs of the quality specified by modern requirements, barley meal has probably no equal amongst the range of foods available and suitable for pig-feeding.

The cultivation of barley has not, in the past, been practised extensively in Northern Ireland, except in particular districts where there was a demand for barley for malting. With the recent expansion in the pig industry the growing of barley has assumed a role of major importance, since the use of barley meal in pig rations has become more general than formerly and since the greater part of the barley meal so used is made from imported barley, which is usually more expensive than would be the case if the barley were grown on the home farm. It is obvious, therefore, that if satisfactory crops of barley could be grown generally in Northern Ireland and the produce fed to pigs, the cost of producing bacon pigs would be reduced and at the same time the difficulties of obtaining carcases of the quality desired would be lessened.

With these considerations in mind, the Ministry is encouraging an extension in the area under barley, and, through the medium of the Agricultural Instructors, employed by County Committees of Agriculture, experiments and demonstrations designed to obtain information regarding varieties, and other matters connected with barley growing, were carried out in 1935 and again in 1936.

Variety experiments, in which three different varieties were compared, were carried out at 8 centres in 1936 and the results obtained in each County are shown in Table 5. The average results from all 8 centres, along with those obtained from the trials carried out in 1935 and the true average yields for both years' tests, are also given in the Table.

TABLE 5.—YIELDS PER STATUTE ACRE.

County	No. of Centres	Spratt-Archer			Old Common (Chevalier)			Golden Archer		
		Grain		Straw	Grain		Straw	Grain		Straw
		c.	qr.	cwt.	c.	qr.	cwt.	c.	qr.	cwt.
Antrim ..	1	18	1	39	22	3	45	22	3	43
Armagh ..	1	20	2	31	18	2	31	25	0	40
Down ..	2	15	2	25	20	0	26	19	1	28
Fermanagh ..	1	16	1	—	15	1	—	20	0	—
Londonderry ..	1	15	2	24	19	1	24	15	2	23
Tyrone ..	2*	15	3	46	18	1	41	15	3	39
Average Yields 1936 (8 centres) ..		**17**	**3**	**32**	**19**	**0**	**32**	**19**	**1**	**33**
1935 (8 centres) ..		**24**	**1**	**34**	**22**	**1**	**30**	**24**	**3**	**34**
True Average Yields 1935-36 (16 centres)		**21**	**0**	**33**	**20**	**2**	**31**	**22**	**0**	**34**

* 1 Centre for Straw.

Owing to the unfavourable season, the yields obtained in 1936 were considerably lower than those in the previous year, but satisfactory crops were produced at most centres.

Golden Archer gave the highest average yield of grain in both years' tests. This variety is of comparatively recent introduction and closely resembles Spratt-Archer. Both Golden Archer and Spratt-Archer have strong straw, which is fairly resistant to lodging, and are suitable for cultivation on the heavier types of soils in good condition. Old Common or Chevalier has also given satisfactory yields in both years' trials. This is an old-established variety

having long, slender straw, and is best suited for growing on the lighter classes of soils. It ripens early and for that reason is the most suitable of the three varieties for late districts.

These results indicate that, under average conditions, good crops of barley can be grown in Northern Ireland. Farmers, particularly those engaged in pig keeping, are accordingly, strongly advised to grow even a small area of this crop during the incoming season and so reduce expenditure on purchased feeding stuffs.

Barley is best grown after potatoes or turnips and, on such land, manuring is not necessary. Early sowing gives best results ; the most satisfactory crops are those which are sown not later than the first week in April. A seeding at the rate of about 16 stones per acre is suitable.

Further information relating to barley growing can be obtained either from the Ministry, or from the Instructor in Agriculture, who will visit and advise, on request.

POTATO VARIETY TESTS.

The main object of these tests was to ascertain the cropping capabilities and suitability of some of the newer varieties as compared with some of the older and proved varieties. Two series of tests were carried out, one with main crop varieties and the other with early varieties.

Main crop varieties :—The tests with main crop varieties were carried out in 1936 at ten centres by the Agricultural Instructors and the average results obtained, along with those from the two previous years' trials, are given in Table 6. The true average yields from the three years' tests, in respect of thirty-one centres are also given in the Table.

It will be seen that in respect of the three years' tests, Majestic has given the highest average total yield of ware and seed-sized tubers. The variety Arran Cairn, which gave the heaviest yield in the 1935 trials, and Arran Consul gave an almost identical average yield over the three years' tests. Arran Cairn is a very late maturing variety and in the season of 1936 the foliage of the crop was cut down prematurely by a severe and widespread attack of blight, so that the yields obtained from this variety were disappointing. It may, however, prove more satisfactory in future years when weather conditions are more favourable.

Gladstone is a new variety which was tested for the first time in the trials carried out in scheduled areas in 1935 and gave a satisfactory yield. It was decided, therefore, to include it in the Agri-

TABLE 6.—AVERAGE YIELDS PER STATUTE ACRE.

Variety	Year 1936 (10 centres)		Year 1935 (11 centres)		Year 1934 (10 centres)		True Average Yields, 1934-1936 (31 centres)	
	Ware and Seed	Total	Ware and Seed	Total	Ware and Seed	Total	Ware and Seed	Total
	T. C.	T. C.	T. C.	T. C.	T. C.	T. C.	**T. C.**	**T. C.**
Majestic	12 14	14 2	16 17	17 17	16 1	16 18	**15 5**	**16 7**
Arran Cairn ..	9 17	12 10	17 5	18 9	15 2	16 8	**14 3**	**15 17**
Arran Consul ..	13 5	14 16	15 12	16 18	14 14	15 13	**14 11**	**15 16**
Up-to-Date ..	10 10	12 7	15 13	17 13	13 17	15 5	**13 8**	**15 3**
Arran Victory ..	11 19	12 16	14 17	15 10	13 15	14 12	**13 11**	**14 7**
Kerr's Pink ..	11 6	12 10	14 15	15 17	—	—	—	—
Gladstone	12 6	13 6	—	—	—	—	—	—

cultural Instructors' trials in 1936, in which as will be seen from Table 6, it proved satisfactory. Gladstone is an early main crop variety which produces kidney-shaped tubers. The tubers are white-skinned with splashes of pink, and in both shape and colour closely resemble those of the non-immune variety King Edward, which it is hoped it will replace.

Early Varieties :—The trials with early varieties, which were conducted in 1934 and 1935, were again carried out in 1936 by the Agricultural and Horticultural Instructors. The six varieties included in the two previous years' tests were again specified for testing in 1936 and the average results obtained from the ten centres at which the trials were conducted are given in Table 7. For comparison purposes the average yields obtained from the trials carried out in 1935 and in 1934 are also given, along with the true average yields of the three years' tests at thirty-eight centres.

It will be observed that the variety Arran Pilot gave the highest average yield in respect of the three years' trials. Arran Pilot is one of the earliest varieties of the May Queen type. In these trials it produced an average yield of 26 cwt. of ware and seed tubers per acre, more than was obtained from May Queen in the three years' tests. The tubers of Arran Pilot are plump and long-shaped, and are very suitable for meeting the requirements of the English market.

Dunbar Yeoman and British Queen have given almost similar average total yields in the three years' tests. Dunbar Yeoman is a comparatively new first early variety with tubers having lemon-coloured flesh and of good eating quality.

Ballydoon has also given satisfactory yields throughout these trials, the average yield of ware and seed tubers per acre being only 3 cwt. less than that obtained from British Queen. Ballydoon is an immune variety which closely resembles the non-immune British Queen variety, both as regards foliage and type of tubers produced. It matures earlier than British Queen.

Di Vernon gave heavy yields in the 1936 year's tests and the average total yield obtained from this variety in the three years' trials is not far behind that obtained from Ballydoon. The tubers of Di Vernon are of the kidney type, symmetrical in shape, and pale yellow in colour with a purple splash at the rose end. This variety is very suitable for cultivation in gardens and in allotment plots.

Further information and descriptive notes relating to the newer varieties which were included in both these series of trials and also in the tests carried out at the North West School, Strabane, and at Stormont, are given in Leaflet No. 7, copies of which can be obtained

TABLE 7.—AVERAGE YIELDS PER STATUTE ACRE.

Variety	Year 1936 (10 centres)		Year 1935 (17 centres)		Year 1934 (11 centres)		True Average Yields, 1934-1936 (38 centres)	
	Ware and Seed	Total	Ware and Seed	Total	Ware and Seed	Total	Ware and Seed	Total
	T. C.	T. C.	T. C.	T. C.	T. C.	T. C.	**T. C.**	**T. C.**
Arran Pilot ..	13 8	14 5	9 9	10 10	9 15	11 5	**10 12**	**11 14**
British Queen ..	11 8	12 17	9 14	11 4	10 2	11 3	**10 6**	**11 12**
Dunbar Yeoman ..	10 17	11 13	9 12	10 17	11 10	12 11	**10 10**	**11 11**
Ballydoon	11 7	12 1	9 9	10 5	10 3	11 2	**10 3**	**10 19**
Di Vernon ..	10 7	11 16	8 19	10 7	9 3	10 10	**9 8**	**10 15**
May Queen ..	10 14	11 8	9 1	10 1	8 2	9 4	**9 4**	**10 3**

free from the Ministry, on request. This leaflet also contains information regarding "Black Scab" or Wart disease, particulars of the inspection and certification of growing crops of potatoes, and useful hints on the maintenance of purity and vigour in stocks of potatoes, but for detailed particulars of the last mentioned problem, Leaflet No. 73 should be consulted.

Lists, giving the names and addresses of growers, whose crops of potatoes have been certified and are suitable for seed purposes, can also be obtained from the Ministry free, on request.

MANURIAL MIXTURES FOR FARM CROPS.

The results of past experiments have shown that, in addition to sowing the most suitable variety or strain of seed, proper manuring is also necessary if best returns are to be obtained. The following mixtures of manures for different crops have given good results for average conditions in Northern Ireland :—

Oats.

For oats on lea ground in poor condition, and on land following potatoes, a mixture composed of :—

1 cwt. sulphate of ammonia,	per
2 cwt. superphosphate,	statute
1 cwt. 30 per cent. potash salts,	acre,

applied a few days before or at time of sowing the seed.

For oats following wild white clover lea and on other land in good condition, an application of 2 cwt. superphosphate and from $\frac{1}{2}$ to 1 cwt. 30 per cent. potash salts per statute acre increases the yield and assists in preventing lodging.

Wheat.

An application of 1 cwt. of a nitrogenous manure, such as sulphate of ammonia, nitro-chalk or nitrate of soda, per statute acre, should be applied during early April, and the braird harrowed lightly afterwards.

Barley.

When barley is grown after a potato or a turnip crop which has been well manured no fertiliser is usually necessary.

When grown after another cereal crop, especially if the land is not in high condition, a complete dressing of artificial manures should be applied. For this purpose an application of 1 cwt. sulphate of ammonia, from 2 to 3 cwt. superphosphate, and 1 cwt. 30 per cent. potash salts, per statute acre, is suitable.

Flax.

From 1 to 1½ cwt. muriate of potash per statute acre should be applied before sowing the seed. On land in poor condition, the addition of ½ cwt. sulphate of ammonia per statute acre is beneficial.

Potatoes.

Where farmyard manure is available, a mixture of 1 cwt. sulphate of ammonia, 4 cwt. superphosphate, and 1 cwt. muriate of potash, along with 15 tons farmyard manure, per statute acre, is recommended. The artificials can be mixed and stored for from two to three weeks before use without impairing the efficiency of the mixture.

If farmyard manure is not available, the mixture of artificials stated should be applied at the rate of 9 cwt. per statute acre.

Turnips.

A dressing of from 10 to 15 tons of farmyard manure, along with from 4 to 6 cwt. superphosphate, Semsol, high grade basic slag, or Gafsa rock phosphate, per statute acre.

Where farmyard manure is not available, a dressing of from 1 to 1½ cwt. sulphate of ammonia, 6 cwt. superphosphate or other phosphatic manure, and from 1 to 2 cwt. 30 per cent. potash salts, per statute acre, should be applied. If " finger and toe" disease is feared, basic slag should be used in preference to the other sources of phosphates.

Mangels.

Liberal manuring of mangels is necessary to obtain best results. The following dressing per statute acre is recommended :—

20-25 tons farmyard manure.
2 cwt. sulphate of ammonia.
4 cwt. superphosphate.
4 cwt. kainit.

In addition, 1 cwt. nitrate of soda per acre, applied as a top dressing after thinning, benefits the crop.

Cabbage and Kale.

For these crops the following dressing per statute acre should be given :—

20-25 cwt. farmyard manure.
2 cwt. sulphate of ammonia.
4 cwt. superphosphate.
1 cwt. 30 per cent. potash salts.

Hay.

A suitable top dressing for application during March to land intended for hay for cutting or hay for seed saving purposes is :—

1 cwt. sulphate of ammonia 2 cwt. superphosphate 1 cwt. 30 per cent. potash salts	per statute acre.

Pastures.

A dressing of from 6 to 8 cwt. of high grade basic slag, Gafsa rock phosphate or Semsol per statute acre, applied during autumn or early winter to grassland in poor condition, promotes the growth of good grasses and clovers and increases the stock-carrying capacity of the land. On the lighter classes of soils, the application of 1 cwt. 30 per cent. potash salts per acre, in addition to the phosphatic manure, is beneficial.

Where there is a mat of old grass or of fog on the surface of the pasture, the land should be thoroughly harrowed before the manures are applied. An ordinary straight-tined zig-zag type of harrow which has been freshly sharpened is quite suitable for this purpose. Harrowing should be carried out in a lengthwise and also in a crosswise direction, so that the surface of the ground is well torn up and the fog or undecayed vegetation removed.

For the production of early grass 1 cwt. sulphate of ammonia or nitro-chalk per acre should be applied during the first week of April.

MINISTRY OF AGRICULTURE,
STORMONT, BELFAST.
Revised, March, 1937.

Copies of leaflets may be obtained free of charge, and post free, on application to the Secretary, Ministry of Agriculture, Stormont, Belfast. Letters so addressed need not be stamped.

Wt. 1595/3130 ; 5m 3/37. W.G.B. Gp. 255.

MARKETING SCHEMES.

AGRICULTURAL MARKETING (PIG INDUSTRY) ACT (N.I.), 1934 :—

PIG PRICES FOR APRIL, 1937.

The following announcement was made by the Pig Industry Council for Northern Ireland.

PRICES FOR DEAD PIGS.

The prices per dead cwt. for dead pigs sold by producers to curers in Northern Ireland, in April, 1937, are as follows :—

Weight Class. (Dead Weight).	Grade 1.	Grade 2.	Grade 3.		Partly Black pigs.
Under c.1.0.21	57/7	57/7	57/7		57/7
c.1.0.21 to c.1.2.3 ..	68/7	65/7	62/7		5/- below relevant Grade Price.
Weight Class. (Dead Weight.)	Grade A.	Grade B.	Grade C.	U.L. or U.F.	
c.1.2.4 to c.1.2.14 ..	68/7	65/7	62/7	59/7	
c.1.2.15 to c.1.3.14 ..	68/7	65/7	62/7	59/7	
c.1.3.15 to c.2.0.0 ..	65/7	62/7	59/7	56/7	
c.2.0.1 to c.2.0.14 ..	59/7	56/7	53/7	50/7	

U.L.—Under Grade A. measurements. U.F.—Over Grade C. measurements.

Authorised cuts :—

(a) Broken ham (dry, shank and/or shell bone break)—5% of the gross value of the carcase.

(b) Broken ham (wet break)—12½% of the gross value of the carcase.

(c) Shoulder-stuck carcase—3/- per shoulder affected.

The gross value of a carcase is the product of the dead weight and the relevant grade or other price per cwt.

Where portion of a pig carcase weighing not more than c.2.0.14 is condemned and the existence of disease could not reasonably have been known to the producer before despatch to the curer the appropriate grade price shall apply. If the carcase is wholly condemned on account of disease, the existence of which could not reasonably have been known to the producer before despatch to the curer, the relevant Grade 2 or Grade B price shall apply.

The foregoing prices do not apply in the case of (a) wholly black pigs, boars, rigs or stags, sucked sows, and pig carcases weighing over c.2.0.14, and (b) pigs visibly diagnosable as diseased before despatch by the producer and subsequently condemned; emaciated or screw pigs; smelling pig carcases with definite indications of putrefaction, and pig carcases badly abused or damaged before being handed over by the producer to the curer.

Prices for Wiltshire Pigs Sold on Direct Contract.

In the case of pigs sold alive under direct contract to Wiltshire curers the prices per dead cwt. payable for pigs delivered in respect of the month of April, 1937, are as follows:—

Weight Class. (Dead Weight.)	Grade 1.	Grade 2.	Grade 3.	Unsuitable.
Under c.1.0.21 ..	61/7	61/7	61/7	59/7
c.1.0.21 to c.1.2.3 ..	72/7	69/7	66/7	59/7
c.1.2.4 to c.1.2.7 ..	Grade A. 69/7	Grade B. 66/7	Grade C. 63/7	U.L. or U.F. 60/7
Over c.1.2.7 ..	On the same basis as pigs sold dead.			

Prices for Live Pigs Sold to the Pigs Marketing Board (Northern Ireland).

In the case of pigs sold alive to the Pigs Marketing Board during April, 1937, the prices, according to grade, are as follows:—

Live Weight.	Grade 1.	Grade II.	Grade III.	Unsuitable.
Under c.1.2.14 ..	46/3	46/3	46/3	44/9
c.1.2.14 to c.2.0.0 ..	54/6	52/3	50/–	44/9
c.2.0.1 to c.2.1.14 ..	51/6	49/3	47/–	44/9
c.2.1.15 to c.2.2.7 ..	49/3	47/–	44/9	42/6
c.2.2.8 to c.2.2.21 ..	44/9	42/6	40/3	38/–

These prices do not apply to live pigs over c.2.2.21, live pigs intended for breeding, live boars, live sucked sows, rigs or stags, injured or diseased pigs, live in-pig gilts, or live pigs sold (on contract registered with the Pig Industry Council) to curers in Northern Ireland. All other live pigs inside the weights c.1.2.0 to c.2.2.21 can be sold only to the Board.

Authorised Deductions.

Every pig (dead or alive) sold to a curer or to the Pigs Marketing Board is subject to a contribution at present amounting to 1/-.

In addition to this amount, a deduction of 4d. per pig may be made in the case of sales to curers to cover insurance, so that the producer will not suffer financial loss if the carcase is condemned as unfit for human consumption.

In the case of pigs sold to the Board, there is a deduction of 2/6d. per pig for marketing charges.

COST OF STANDARD PIG RATION.

The average retail cash price per cwt. of the standard ration for the sixteen weeks' period ended 20th March, was 9/6½d. This figure has been calculated by the Ministry from returns collected from 10 representative centres in Northern Ireland.

The following is the ration upon which the feeding cost is based:—

Maize Meal	...	...	...	30%
Barley Meal	...	...	...	30%
Pollards (White)	...	...	...	20%
White Bran	...	...	...	10%
Meat Meal (60% Protein)	...	...	...	10%

GRADING STATISTICS.

Table showing the percentages of pig carcases falling within the weight and grade classes indicated during February, 1937.

Under c.1.0.21.				c.1.0.21. to c.1.2.3.				Totals
Grade 1	Grade 2	Grade 3		Grade 1	Grade 2	Grade 3		
1.01	.45	.28	.12	4.12	4.41	3.85	.11	14.35

Grade A.				Grade B.				Grade C.				
1	2	3	4	1	2	3	4	1	2	3	4	
9.45	20.52	3.90	.92	7.12	19.45	4.87	1.78	2.47	8.31	1.45	.42	80.66

UNGRADED CARCASES.

Under Grade A measurements. U.L.	Over Grade C measurements. U.F.	Wholly condemned. U1.	Wholly black, injured or damaged. U2.	Overweights, boars, sows, etc. X.	Partly Black. Y.	
.02	2.79	.03	.67	1.42	.06	4.99
					Total	100%

These figures have been calculated from the purchase and grading statements which the curers furnish to the Ministry.

The volume of trade in pig carcases during February showed little change from the previous month. The average price per head showed a reduction on the month of 2/10d. at £5 7s. 1d. The average weight of each carcase was 1 lb. lighter at c.1.2.22, and the average price of pork per cwt. was 1/2d. cheaper than for the month of January at 63/1d.

The following table gives the percentage results of an analysis of the purchase and grading statements furnished by Wiltshire bacon curers in respect of live pigs delivered on direct contract by producers during the month of February, 1937.

Weight Class.	Grade 1.	Grade 2.	Grade 3.	Unsuitable	Total.
Under c.1.0.21 ...	.46	1.77	.08	—	2.31
c.1.0.21 to c.1.2.3	38.10	37.44	14.93	.38	90.85
	Grade A.	Grade B.	Grade C.	U.L. or U.F.	
c.1.2.4 to c.1.2.7 ...	1.02	1.50	.57	.05	3.14
c.1.2.8 to c.1.3.14 ...	.84	1.76	.97	.10	3.67
Over c.1.3.14 ...	—	—	.03	—	.03
Totals ...	40.42	42.47	16.58	.53	100.

The average net price per cwt. in respect of these deliveries works out at £3 9s. 7d., after making allowance for insurance and contribution to the Pigs Marketing Board.

The average weight works out at c.1.1.15, the net average price per pig being £4 16s. 4d.

BUTTER AND CREAM MARKETING SCHEME (NORTHERN IRELAND), 1936.

The Butter and Cream Marketing Scheme (Northern Ireland), 1936, which came into operation on the 5th May, 1936, provided, inter alia, for the establishment of a Board to administer the scheme. The scheme also provided that the Board is to consist of seven members, of whom three are to be appointed by the Minister of Agriculture and four to be elected by registered producers. The first election of members to the Board was to be held in March, 1937, and to bridge the period intervening between the introduction of the scheme and the first election of members in March, 1937, the Board was to consist of members appointed by the Minister of Agriculture.

The following persons were accordingly appointed by the Minister as members of the first Butter and Cream Marketing Board (Northern Ireland) :—

H. A. M. Barbour, Esq., Strathearne, Dunmurry (Chairman).
A. M. Buller, Esq., Cloughmills.
J. F. Gamble, Esq., M.P., Bridgehill, Castlederg.
D. A. E. Harkness, Esq., Ministry of Agriculture, Stormont.
W. J. McAllister, Esq., Artigarvan, Strabane.
R. G. McCullagh, Esq., Springfield, Enniskillen.
H. O'Hara O'Neill, Esq., Ministry of Agriculture, Stormont.

The above persons were to hold office until the 31st March, 1937, after which date a new Board, consisting of three members appointed by the Minister of Agriculture, and four members elected by registered producers, was to take office.

Arrangements were, accordingly, made to hold an election to decide the four members to represent registered producers. Only four candidates, however, were nominated, and they were accordingly declared elected. In addition the Minister of Agriculture has now appointed the three members to complete the Board. The personnel of the present Board is as follows :—

1. Appointed by the Minister of Agriculture:

   H. A. M. Barbour, Esq., Windy Brow, Lisburn (Chairman).
   D. A. E. Harkness, Esq., Ministry of Agriculture, Stormont.
   H. O'Hara O'Neill, Esq., Ministry of Agriculture, Stormont.

2. Elected by registered producers:

   Alexander McLean Buller, Esq., Cloughmills Co-operative Agricultural and Dairy Society, Cloughmills, County Antrim.
   James Fulton Gamble, Esq., M.P., Bridgehill, Castlederg, County Tyrone.
   Wm. James McAllister, Esq., Leckpatrick Creamery, Artigarvan, Strabane, County Tyrone.
   Robert George McCullagh, Esq., Springfield Creamery, Enniskillen, Co. Fermanagh.

The scheme has now been amended to provide, by election, for the representation of proprietary creameries on the Board by one member, and arrangements for the conduct of the election are at present being made by the Ministry.

THE CATTLE INDUSTRY (EMERGENCY PROVISIONS) ACTS, 1934 AND 1935.

Continuing the comparisons between the numbers of cattle certified in Northern Ireland, figures are now supplied in the following table for the second quarter, or winter period, of the first three years of the subsidy :—

Month.	Steers.	Heifers.	Cow Heifers.	Total.
December, 1936	6,393	2,498	257	9,148
„ 1935	7,909	3,293	235	11,437
„ 1934	3,919	1,949	194	6,062
January, 1937	8,988	3,119	276	12,383
„ 1936	10,027	3,523	244	13,794
„ 1935	8,043	2,937	250	11,230
February, 1937	9,210	2,863	236	12,309
„ 1936	10,200	3,289	306	13,795
„ 1935	7,550	2,252	288	10,090
Total for Quarter, 1937	24,591	8,480	769	33,840
„ „ 1936	28,136	10,105	785	39,026
„ „ 1935	19,512	7,138	732	27,382

The decrease in the number certified during the quarter ended February last, from the total recorded for the corresponding period a year ago, was most marked in the month of December, although the number of cattle certified on a live weight basis in the United Kingdom actually was higher in that month than in the corresponding month of 1935, whilst January and February returns showed decreases on the year. Comparing further with United Kingdom numbers, it is noted that Northern Ireland cattle comprised 8.3% of the figure for the quarter ended February last, as against 9.5% a year ago, and 7.4% during the second quarter of the first year of the subsidy ended February, 1935. The total numbers of cattle certified in the United Kingdom were as follows:—

December, 1936	..	137,810
„ 1935	..	135,023
„ 1934	..	116,335
January, 1937	..	136,882
„ 1936	..	139,180
„ 1935	..	135,328
February, 1937	..	132,555
„ 1936	..	134,510
„ 1935	..	120,299
Total for Quarter ended February 1937		407,247
„ „ „ „ 1936		408,713
„ „ „ „ 1935		371,962

It should, however, be remembered that, whilst these numbers of certified cattle give some idea of comparison of the trade in Northern Ireland with

that for the whole of the United Kingdom, owing to the fact that more than one-third of the fat cattle are sold at markets held on Mondays, and the numbers sold each day decreases as the week proceeds, adjustments have to be made to allow for satisfactory comparisons of the volume of trade from month to month. The adjusted monthly totals for the whole of the United Kingdom are as follows:—

Month.	1937	1936	1935	1934
December ..	—	132,704	125,941	114,140
January ..	143,797	139,852	130,316	—
February ..	143,601	144,217	130,325	—

The average prices per live cwt. of all cattle in Northern Ireland in respect of which payments have been made by the Cattle Committee during the periods under review, have been as follows:—

Month.	1937	1936	1935	1934
	s. d.	s. d.	s. d.	s. d.
December ..	—	31 5	28 10	30 10
January ..	33 1	30 9	31 3	—
February ..	33 3	31 11	30 10	—

The prices of fat cattle have steadily advanced since the beginning of this year, and recent prices have reached higher levels than for some time past.

In the following table comparisons are made between the average live weights of Northern Ireland cattle, in respect of which payments were made during the second quarters of the "subsidy" years. These average weights were calculated from the nett weights on which payments have been made. The average weight of the cattle, as weighed at the centres, would be 28 lb. heavier in each case.

Month.	1937	1936	1935	1934
	c. qr. lb.	c. qr. lb.	c. qr. lb.	c qr. lb.
December ..	—	8 1 27	8 1 22	8 2 13
January ..	8 2 8	8 2 4	8 2 20	—
February ..	8 1 17	8 1 14	8 2 13	—

The latest returns to hand from the Cattle Committee show that the total payments made under the Acts up to and including 3rd instant, for 4,052,814

head of cattle certified on a live weight basis, in the United Kingdom, amounted to £9,585,244 12s. 6d. These payments were distributed as follows:—

	No. of Animals	Amount paid.
England and Wales ..	2,864,203	£6,792,821 16 3
Scotland ..	868,776	£2,123,546 10 0
Northern Ireland ..	319,835	£668,876 6 3

The average payment received per animal, calculated from the totals for the whole of the United Kingdom, amounted to £2 7s. 4d., and this figure compares with—England and Wales, £2 7s. 5d.; Scotland, £2 8s. 11d.; Northern Ireland, £2 1s. 10d.

Subsidy payments, made during the week ended 3rd instant, covered 22,333 animals certified on a live weight basis in the United Kingdom, of which 2,203, or roughly one-tenth, were from Northern Ireland. The average price per head of the Northern Ireland cattle was £14 14s., the average weight c.8.1.7., and the average price per live cwt., 35/4d. For the corresponding week of 1936 the figures were £12 19s. 0d., c.8.0.18 and 31/9d. respectively.

AGRICULTURAL NOTES.

SEASONAL FARM NOTES.

Oats.—The sowing of oats should be proceeded with at every opportunity when soil conditions are suitable. Except on rich soils, a full crop of oats will not be obtained without proper manuring, and where sowing has been delayed it is of particular importance that a manurial dressing be applied, since manuring promotes root development and vigorous brairds, and encourages the production of quick-growing crops. The complete manurial dressing given in last month's Report, namely, 1 cwt. sulphate of ammonia, 2 cwt. superphosphate, and 1 cwt. 30 per cent. potash salts, per statute acre, should be applied to oats on lea ground in poor condition, and on land following potatoes. Where, however, the pasture has been enriched by Wild White clover, a dressing of 2 cwt. superphosphate per acre should be adequate, except on light soils where it is advisable to apply 1 cwt. 30 per cent. potash salts per acre in addition to the phosphate manure.

To promote thicker and more vigorous brairds, seed oats should be dressed with "Ceresan" or "Agrosan G." before sowing, particularly in the case of late-sown crops. The correct amount of either of these materials to apply is 2 oz. to each 3 stones of seed. The oats and the fungicide can be conveniently mixed together in a disused end-over-end churn, or even in an ordinary barrel as advised in last month's Report.

BARLEY.—It is not too late to sow barley, but sowing should be done immediately conditions are favourable, as late-sown crops are seldom satisfactory. Such varieties as Spratt-Archer, Golden Archer and Old Common (Chevalier), are suitable for growing under Northern Ireland conditions, and a seeding of about 16 stones per statute acre is recommended, where the seed is sown broadcast. Further notes on the growing of barley appeared in last month's Report.

POTATOES.—The planting of potatoes should be pushed forward now and completed as soon as possible. Potatoes which are cut for seed should be planted soon after cutting, before the "sets" become dry and shrivelled, and precautions taken to prevent the cut surfaces from coming into contact with the artificial manures applied, otherwise "misses" are liable to occur in the crop. The artificial manures are best applied immediately after the farmyard manure has been spread in the drills, and the cut "sets" then placed with the cut surfaces uppermost. In the case of such varieties as Arran Consul and Majestic, whole seed should, for preference, be planted, but if this is not possible, the "sets" should be planted immediately after cutting. It is also advisable, in the case of these varieties to complete the work of opening the drills, manuring, planting and closing the drills on the same day, if planting is being done during dry weather.

Farmers, planting seed from healthy stocks, are reminded of the importance of growing these potatoes under conditions which will protect them from disease infection during the growing period. The ideal arrangement is to grow healthy stocks in a field apart from the ordinary farm stock of potatoes, but if this cannot be done, a few drills of cabbage, or of turnips, should be grown between the healthy stock and the farm stock. If this is not done, it is extremely likely that the healthy stock may become infected with diseases, such as leaf roll and mosaic, which may be affecting the ordinary farm stock.

FLAX.—On land where it is intended to sow flax, a dressing of from 1 to 1½ cwt. muriate of potash per statute acre should be applied several days before sowing the seed. On land in poor condition, it is an advantage to apply about ½ cwt. sulphate of ammonia per acre in addition to muriate of potash.

WHEAT.—A dressing of 1 cwt. sulphate of ammonia, nitro-chalk, or nitrate of soda, per statute acre, should be applied now to brairds of autumn-sown wheat, if in a backward condition, and the brairds harrowed lightly afterwards.

If it is proposed to sow spring wheat during April, it should be noted that the only variety which is likely to produce a satisfactory crop is April Red—a bearded wheat.

MANGELS.—A small area of mangels is an advantage on any farm, as these roots form a useful succulent food for stock for feeding late in the season when supplies of turnips are exhausted. Liberal manuring of mangels is necessary, if heavy yields are to be obtained. A heavy dressing of farmyard manure, from 20 to 25 tons per acre, along with a mixture of 2 cwt. sulphate of ammonia, 4 cwt. superphosphate and 4 cwt. kainit, per statute acre, should be given. In addition, a dressing of 1 cwt. nitrate of soda per acre, applied after the crop has been thinned,is also of benefit in producing heavy yields. The seed should be sown during April, if possible. The Red Intermediate type of mangel has given the heaviest yields in trials carried out over a number of years in Northern Ireland.

CABBAGE AND KALE.—Succulent food for cattle during autumn and early winter may be provided if a small area of Early Drumhead cabbage seed is sown during April. Cabbage are particularly valuable for dairy cows after they are brought in from the grass in autumn, and help to maintain milk yields at this period when the flow of milk is liable to decrease. The seed should be sown at the rate of from 3 to 4 lb. per statute acre in drills in the same way as turnips, and the plants afterwards singled to about 24 inches apart. Cabbage respond well to liberal manuring, and a dressing of from 20 to 25 tons farmyard manure, 2 cwt. sulphate of ammonia, 4 cwt. superphosphate, and, in addition, 1 cwt. 30 per cent. potash salts in the case of light soils, per statute acre, is recommended. Marrow-stem and thousand-headed kale will also produce heavy yields of green food for stock feeding purposes. These crops require the same manuring as cabbage, and the seed may be sown at a similar rate, but the plants need not be singled, but merely thinned in the rows.

SEEDS MIXTURES.—The importance of sowing a good mixture of grass and clover seeds when laying down land to pasture may again be emphasised. It should be remembered that the ultimate quality of the subsequent pasture will depend largely on the composition of the mixture, and on the quality of the seeds used. Frequently, the mistake is made of sowing too large a proportion of ryegrasses such as Italian and Perennial, and of not including sufficient of the permanent grasses and clovers, such as cocksfoot, timothy and wild white clover. If a pasture is to remain productive for a number of years, it is essential that seeds of truly permanent grasses and clovers be sown, otherwise weeds and useless grasses will take the place of the temporary grasses sown, and the pasture will deteriorate in grazing capacity. Wild white clover should be included in all mixtures where the land is to be laid down to pasture for two or more years. This is a truly permanent clover and its inclusion in the mixture will not only materially improve the subsequent grazing, but will also increase the fertility of the land for future crops. The slightly increased

cost of including wild white clover in the mixture will, accordingly, be well repaid. For examples of suitable seeds mixtures for different types of soils, Leaflet No. 40 should be consulted. This leaflet also contains useful information and descriptive notes on the various species of grasses used in seeds mixtures, and hints on the management of pasture. The Instructor in Agriculture for the district will also visit and advise on the laying down of land to pasture, on request.

Pastures.—When time permits, and if not already done, pastures should be harrowed and rolled. The harrowing spreads the manure deposited by grazing animals, and prevents rank clumps of grass appearing later. Harrowing will also destroy the seedlings of rushes which, at this season, are being produced from the seeds deposited by rush plants left uncut last year, and is, accordingly, a useful aid in preventing increased infestation of these weeds.

The growth of early grass may be encouraged by dressing a small area of grassland, which has been previously manured with a phosphatic manure, with 1 cwt. sulphate of ammonia or nitro-chalk per acre.

SEASONAL LIVESTOCK NOTES.

Ox Warble Fly.—In accordance with the Ox Warble Fly Order, the second dressing of cattle for the destruction of warble-fly maggots should have been applied between the 12th and 19th of April, while the third dressing must be applied during the period from the 10th to 17th May. It should be remembered that if the dressing is not applied at the proper times, some of the maggots will escape and produce a new brood of flies which in turn will give rise to subsequent infestations of maggots in cattle next year—an occurrence which the Order is designed to prevent. Furthermore, it is an offence against the Order if dressing is not done during the specified periods. All cattle owners are, therefore, again reminded that it is in their own interests to comply strictly with the Order.

Seven preparations for warble-fly maggot destruction are recommended for use this season, namely, Cooper, McDougall and Robertson's "Polvo" and Warble Fly Powder; Harwood's "Cowboy"; Evans' Warble Fly Powder; Young's Warble Fly Powder; Osmond's "Warblo" and Allen and Hanbury's "Plough" Brand Warble Fly Powder. Full directions for the mixing and application of the dressings are given with the preparations, and great care should be taken to see that these directions are followed. For instance, in some cases soft soap, as well as water, has to be added, whereas in other cases the addition of water alone is required. The wash should be prepared immediately before application, as it may lose its effectiveness when stale.

It is also important to stir the washes during the period of application to prevent any sediment from settling at the bottom of the vessel. Further particulars regarding the preparation and application of the washes are given in Leaflet No. 64, and in Circular No. 13.

Store Cattle.—An allowance of meals can be fed with advantage now to store cattle intended for sale at the commencement of the grazing season. A mixture composed of three parts crushed oats, or maize meal if oats are not available, and one part decorticated earthnut cake, fed at the rate of from 2 to 3 lbs. per head daily is suitable for this purpose.

Calf Rearing.—The importance of good management and suitable feeding of young calves may again be emphasised. While good breeding is the first essential to successful calf rearing, breeding alone may not ensure success. A calf may be bred on sound lines and inherit good qualities, and yet not develop into a healthy productive animal of the type desired or expected. If young animals are checked in their growth at any time, whether through a deficiency of food, of a wrong system of feeding, or improper housing or disease, they seldom, if ever, develop as they should. Some farmers have been disappointed with the results obtained from the use of good bulls, but they do not realise that many of the "weedy", under-sized, under-developed cattle are the result of bad management during the rearing stages of the animals' lives. To get the best results from good breeding will entail such attention to management as will ensure that growth and development are not checked at any period. The best profits are assured only when good breeding is combined with good management.

Good management entails attention to housing, cleanliness and feeding. These matters are fully dealt with in Leaflet No. 54, and calf rearers are strongly advised to obtain a copy of this leaflet and to practise the recommendations given in it.

Patent Calf Meals.—Farmers are reminded that the use of patent calf meals is unnecessary and increases rearing costs. The prices charged for such meals are often exhorbitant and generally out of all proportion to their feeding value. During the first four weeks of the calf's life whole milk should be given, but after that period separated milk or skim milk may be substituted for the whole milk, along with a small allowance, increased gradually, of a mixture of crushed oats and maize meal, or even crushed oats alone, fed dry after the milk. Only oats of good quality should be used for calf feeding purposes, as otherwise digestive troubles may arise.

Dishorning of Calves.—The simple and inexpensive operation of dishorning all calves, intended for sale as beef or stores, by means of caustic potash before they are nine days old, should not be overlooked. Full directions regarding dishorning are given in Leaflet No. 5.

Feeding of Ewes and Lambs.—As lambing proceeds, the ewes and lambs should, if possible, be turned on to a field of fresh pasture to encourage the flow of milk and promote the growth of the lambs. A daily allowance of a mixture of equal parts oats, linseed cake and bran, given to the ewes, is also of assistance in promoting the flow of milk.

Castration and Docking of Lambs.—Early castration and docking of lambs should be practised. Both these operations are best performed when the lambs are from three to six weeks old, and can be carried out at the same time. When collecting the lambs for castration and docking, care should be taken to ensure that they do not become heated or overcrowded in the pens as the risk of losses following these operations is increased when such occurs. As a preventive of infection, the wounds should be dressed with a mild disinfectant, such as Jeyes' Fluid, or Lysol, at a strength of one teacupful in ten pints of water, before the lambs are released to rejoin the ewes. Information relating to castrating and docking is given in Leaflet No. 63.

Pigs.—Sows and young pigs should be allowed out as much as possible from now onwards. A daily run out on fresh, clean pasture, promotes good thriving in the young pigs, and is also a useful preventive of ailments, such as scour and anaemia. Information relating to the control of the latter ailment is given in Leaflet No. 45. This leaflet has been revised recently.

SEASONAL GARDEN AND ORCHARD NOTES.

Spraying of Apple Trees.—The first application of Bordeaux mixture for the control of apple scab disease should be given to apple trees when the buds have burst and the flowers are exposed, but before any of the bloom shows colour. A second application should be given just before the flowers open. When possible, spraying should be undertaken only when the spray on the trees dries quickly. Spraying during dull weather, when the spray lies on the trees for a considerable time before drying, is likely to result in damage to the fruit. If caterpillars are present on the trees, lead arsenate powder should be added to the mixture at the rate of $1\frac{1}{4}$ lb. to each 40 gallons. Where tar-oil spraying has not been carried out owing to unfavourable weather conditions, it will be advisable to add 6 fluid ozs. of nicotine or 8 ozs. of nicotine sulphate to each 40 gallons of the Bordeaux mixture to destroy insect pests such as aphides and apple sucker. Particulars of the spraying of apple trees are given in Leaflet No. 33.

Grafting Apple Trees.—The grafting of apple trees should be undertaken whenever the sap is moving freely. If the method known as "herring-bone grafting" is adopted, it is possible to substitute good varieties for inferior ones and obtain cropping trees in a couple of years' time.

Disposal of Prunings.—All fruit tree prunings should be collected and burned to prevent them acting as sources of infection of disease. This is an important item of orchard routine, even where the trees are healthy. The practice of piling the prunings along the fences and leaving them to rot is one which cannot be too strongly condemned.

American Gooseberry Mildew.—Where an attack of this disease is anticipated, gooseberry bushes of such varieties as, Whinham's Industry, Crown Bob, Whitesmith, Warrington, etc., should be sprayed just after flowering with a solution of ammonium polysulphide, prepared by adding $\frac{1}{4}$ pint ammonium polysulphide to 5 gallons of water, together with from 2 oz. to 6 oz. of soft soap. Bushes of yellow or amber varieties should be sprayed at the same stage of growth with a solution of washing soda. This is prepared by dissolving 10 oz. common washing soda in 5 gallons water and adding $\frac{1}{4}$ pint skimmed milk. A second application of these sprays should be given two or three weeks after the first. Full particulars of spraying for the control of this disease are given in Leaflet No. 49.

Black Currant Mite.—Black currant bushes which are slightly attacked by Black Currant Mite should be sprayed just before the flowers open, and again immediately after flowering, with a solution of ammonium polysulphide, prepared according to the following formula:—

8 fluid oz. ammonium polysulphide ("Wye Formula, 1919").

6 oz. soft soap.

5 gallons water.

Bushes which are severely attacked should be uprooted and burned.

Strawberries and Raspberries.—Plantations of these fruits should now be cleared of all weeds and mulched with strawy manure. Particulars of the cultivation of strawberries and raspberries are given in Leaflets Nos. 68 and 71, respectively.

Vegetables.—Seeds of lettuce, peas, beans and turnips should be sown now for succession. Towards the end of April, or early in May, beetroot, French beans, runner beans, and vegetable marrow seeds may be sown out-of-doors, and a further sowing of peas and of broad beans made for succession. Leaflet No. 67 deals with the cultivation of vegetables.

Flowers.—Flower beds and borders should be cleaned of all weeds and other rubbish and left tidy. Seeds of wall-flowers, forget-me-nots, Canterbury bells, etc., should be sown early in May.

SEASONAL POULTRY-KEEPING NOTES.

Hatching.—If it is intended to hatch more chickens this season, only eggs of the light breeds, such as the Leghorn, should be set, as pullets of such breeds mature more rapidly than those of heavy breeds. Late hatched chicks of any breed are, however, seldom profitable, and are often more difficult to rear than those hatched early in the season.

Weaning from Heat.—Great care should be taken when weaning chickens from heat, as chills are often contracted at that stage, and serious losses may be incurred. The temperature of the brooder or hover should be reduced gradually for some time before the heat is finally removed, so as to minimise the effect of the change. In addition, a platform of flat wooden perches about one foot high should be provided in the rearing house. This, as well as preventing huddling and overcrowding, also helps to harden off the chicks, and permits of air circulating from below. It is also an advantage to place a lamp in the house during cold nights after the chickens are weaned from heat. This will raise the temperature of the air in the house and prevent the chickens from huddling and overcrowding in corners during the night.

Fattening of Cockerels.—When the chickens are weaned from heat the cockerels should be separated from the pullets and penned and fattened off as quickly as possible. The earlier the cockerels are ready for market the better are the prices likely to be obtained. A suitable mash for fattening young cockerels is equal parts maize meal, pollard and Sussex ground oats, wet with separated milk, or buttermilk. Milk is an excellent food for the production of white, firm flesh, and if supplies are available, a quantity should be reserved for the cockerels being fed for table purposes.

Management and Feeding of Pullets.—The pullets should be placed out on free range. Clean, fresh ground should be selected. It is just as important to provide clean ground for the pullets at this stage as it is during the rearing period. Many poultry-keepers, while they provide new ground for rearing chickens, make the mistake of allowing the birds, after they are weaned from heat, to range on land on which other poultry have been kept. Such ground may harbour disease germs and parasitic infection, and is often responsible for the high mortality in laying flocks. Land which has just come into grazing after having been through a rotation of crops is clean and, accordingly, very suitable for the accommodation of growing pullets.

The birds should be placed in houses of the portable type. A Sussex night ark, or the slatted floor type of house, is excellent for accommodating pullets when placed out on free range. The houses should be moved frequently so as to bring a fresh portion of the field into range and to avoid a surplus of droppings on isolated areas.

The feeding given to the pullets when placed out on range should be such as will enable the birds to build up large frames and bodies, and to get endowed with the necessary vigour and stamina, for sustained egg production. Forcing mashes containing excessive quantities of stimulating protein-rich foods, such as fish meal and meat meal, should, on no account, be fed to young growing pullets, as the use of such mashes promotes precocious maturity, and may ultimately result in increased mortality in the laying flock. Not more than 5 per cent. of a protein food should be included in the mash. The following meal mixture is recommended for feeding to growing pullets:—

3 parts by weight bran.
4 ,, ,, ,, sharps.
2 ,, ,, ,, Sussex ground oats.
1 ,, ,, ,, maize meal.
¼ ,, ,, ,, fish meal or meat meal.

If separated milk is available, it may be used to replace the fish meal or meat meal, but too large amounts of milk should not be given, otherwise the growth of the birds may be unduly stimulated. Further information on the feeding and management of young pullets is given in Leaflet No. 20. This leaflet has been revised recently, and supplies of the revised edition are now available.

Culling of Laying and Breeding Flocks.—Once hatching is completed, the breeding flock should be carefully examined, and cockerels and hens no longer required for breeding purposes sold off. Hens which have proved themselves to be exceptionally good breeders should, however, be retained, if accommodation on the farm permits of this being done. Such birds are worthy of their place in the breeding pen for another season, even although the number of eggs which they will produce may be smaller than that obtained from two-year-old birds.

The laying flock should also be gone over carefully, and the poor producers and any birds showing defects and lack of vigour, culled out and sold. Current egg prices do not justify the keeping of such birds.

Turkeys.—It is a wise precaution to set the first dozen turkey eggs as soon as they are laid, to test for fertility. Much disappointment may be avoided later if this is done. It may happen that the male bird has failed to fertilise the eggs, and if this is discovered in time, another bird may be substituted before the season is too far advanced. In the case of turkey hens which have been mated for some time, and are not laying yet, it is also a wise plan to have them mated again before laying commences, as otherwise the eggs may not be fertile. Useful hints on the rearing and feeding of turkeys are given in Leaflet No. 37.

Preservation of Hen Eggs.—This is a suitable time for preserving eggs for winter use, now that prices are low. Only absolutely fresh, clean, unfertile eggs, with shells of good texture, should be selected for preservation. The water glass method of preservation has given good results. A solution of 1 lb. of water glass in 1½ gallons of water in a clean three-gallon receptacle is sufficient for 10 dozen eggs. The top layer of eggs should not be less than two inches below the surface of the liquid. The receptacle containing the eggs should be covered with a light lid, or a piece of waxed paper, to prevent evaporation, and should be stored in a cool place.

ANNOUNCEMENTS AND REMINDERS.

GENERAL.

Ox Warble Fly.—The third application of a suitable Derris wash for the destruction of ox-warble fly maggots in cattle should be applied during the period from the 10th to the 17th May. Complete extermination of this pest can only be obtained by concerted action on the part of every cattle owner. Neglect to dress infested cattle is an offence against the Warble Fly Order, and is likely to lead to a prosecution.

Dishorning of Calves.—The dishorning of young calves, intended for sale as beef or stores, should be carried out before the calf is nine days old. Hornless cattle are worth more than those possessing horns.

Patent Calf Meals.—The use of patent calf meals only adds unnecessary expense to rearing costs. Separated milk and a small allowance of crushed oats and maize meal after the whole milk stage has been passed, are sufficient for the production of good calves.

Seeds Mixtures.—Use good mixtures of grass and clover seeds when laying down land to grass; useful grasses will not grow unless they are sown and the good mixture is the cheapest in the end. See Leaflet No. 40 for examples of suitable mixtures for different soils.

Spraying of Apple Trees.—The spraying of apple trees with the proper materials and at the correct times, is the first essential in obtaining large, clean crops of fruit. A spraying calendar for apple orchards is outlined in Leaflet No. 33.

Management of Pullets.—The pullets are the foundation stock of the poultry farm, so ensure that the foundation is secure by managing the pullets

properly. Provide clean, fresh ground for free range, and feed with the object of producing normal development. Forcing mashes will promote precocious maturity and lead to increased mortality. Read Leaflet No. 20, which can be obtained, along with the others mentioned in this Report, free on request.

CLASSES.

The following classes have been arranged by County Committees of Agriculture :—

County.	Date of Commencement of Class.	Centre.	Time at which Class is held.	Subject.
Down	Mon., 26th April	Tullyglush School, Banbridge.	3 to 5 p.m.	Butter and Cheese making.
,,	do.	Moira Orange Hall.	do.	do.
Londonderry	Mon., 12th April	The Old School, Dungiven.	7 to 9 p.m.	do.
,,	Mon., 19th April	The National Hall, Bellaghy.	7-30 to 9-30 p.m.	do.
Tyrone	Tues., 20th April	Donagheady Lecture Hall, Strabane.	7-30 to 9-30 p.m.	Poultry Keeping.
,,	Mon., 26th April	Lisfearty P.E. School, Castlecaufield.	do.	do.

Each of the above classes will be held during several evenings each week for a period of at least three weeks.

SCHOOLS NEWS.

ULSTER DAIRY SCHOOL, COOKSTOWN.

The first term of the year 1937 ended on the 25th March last, and as a result of the examinations held at the end of the term the following pupils, who had completed the ordinary course of three terms, were successful in qualifying for (1) Certificates in Poultry-keeping, Dairying and Rural Housewifery :—

Miss E. C. Cassidy, Sandhill, Derrygonnelly, Co. Fermanagh.
Miss S. A. Corry, Mountfield, Omagh, Co. Tyrone.
Miss M. L. R. Harrison, Mourne View, Ballynahinch, Co. Down.
Miss H. V. Haydock, Lowertown, Dungannon, Co. Tyrone.
Miss M. M. Laverty, Elagh, Stewartstown, Co. Tyrone.
Miss C. J. M'Vey, Ballinderry Bridge, Moneymore, Co. Londonderry.
Miss R. A. Milligan, Ballyskeagh, Newtownards, Co. Down.
Miss C. C. Reid, Marine Road, Carnlough, Co. Antrim.

(2) Certificates in Poultry-keeping and Dairying :—

Miss S. J. M'Nabb, Tummery, Dromore, Co. Tyrone.

For the term which commenced on the 6th April, the following new pupils were admitted to begin their course of training :—

Miss E. B. Aiken, Drumadravey House, Irvinestown, Co. Fermanagh.
Miss B. Blacker, Dorsey, Cullyhanna, Co. Armagh.
Miss G. M. Johnston, Ahoghill, Co. Antrim.
Miss O. A. Little, Clough, Newtownbutler, Co. Fermanagh.
Miss M. T. M'Nulty, Callagheen, Roscor, Belleek, Co. Fermanagh.
Miss B. E. M'Ginley, Ardgart, Roscor, Belleek, Co. Fermanagh.
Miss S. Millar, Garvaghy, Portglenone, Co. Antrim.
Miss M. J. Murdock, Ballinbernice, Templepatrick, Co. Antrim.
Miss L. B. Saunders, 402 Ravenhill Road, Belfast.

Applications for admission to the term which will begin in July next, are now being received by the Ministry, and as equally suitable candidates are admitted to the School in the order in which their applications are received, girls who intend to take out a course of training at this School are advised to send their applications to the Ministry as soon as possible. The School Prospectus contains application forms, and copies may be obtained, free of charge, from the Secretary of any County Committee of Agriculture, from the local Instructor in Poultry-keeping, from the Lady Superintendent, Ulster Dairy School, Cookstown, or direct from the Secretary, Ministry of Agriculture, Stormont.

NORTH-WEST SCHOOL, STRABANE.

The first term of the year 1937 ended at this School also on the 25th March last. There were 21 pupils in the class, all of whom, except two from the counties of Londonderry and Fermanagh who were awarded Scholarships under the terms of the Anne Hall Bequest Fund, held Scholarships awarded by the various County Committees of Agriculture.

The number of girls from each County was as follows :—

County Antrim	..	2
,, Armagh	..	5
,, Down	..	2
,, Fermanagh	..	3
,, Londonderry	..	2
,, Tyrone	..	5

The following pupils are now in residence at the School as scholarship holders for the term which commenced on the 6th April :—

County Antrim :

Miss M. Black, Ardaghmore, Glenshesk, Ballycastle.
Miss M. Carey, Whitehouse, Knocknacarry.
Miss A. J. T. Devlin, Cleggan, Armoy.

County Armagh :

Miss A. V. Carragher, Ballinarea, Altnamackin P.O.
Miss M. E. Mackin, Dorsey, MacDonnell, Cullyhanna.
Miss S. Thompson, 12 William Street, Lurgan.

County Down :

Miss M. A. Devlin, Tullaree, Bryansford.
Miss R. H. M. Fletcher, The Hill, Glascar, Banbridge.
Miss M. C. Martin, Longstone House, Annalong.
Miss M. A. M'Mullan, Ballylough, Annsborough.
Miss E. M. Shilliday, Glenmere, Shanrod, Katesbridge.

County Fermanagh :

Miss F. Brown, Mullygarry, Letterbreen, Enniskillen.
Miss M. Drum, Trustan, Mackin Post Office.
Miss F. M. Eaton, Glenwinney, Derrygonnelly.
Miss M. A. Greene, Braade, Derrygonnelly.

County Londonderry :

Miss F. S. Fleming, Killyvalley, Garvagh.

County Tyrone :

Miss M. E. Devine, Stroan, Brack, Donemana.
Miss M. C. M'Aleer, Drumlish, Dromore.
Miss E. M'Bride, Cavanacaw, Omagh.
Miss K. M. M'Bride, Farritor, Cabragh, Dungannon.
Miss M. B. M'Gurk, Sluggan, Tirooney, Omagh.
Miss M. A. Tierney, Formass, Sixmilecross.

The County Committees of Agriculture are offering a limited number of free Scholarships to this School for the session which will begin in July next, and girls desirous of being considered for the award of these Scholarships should send in their applications as soon as possible to the Secretary of the County Committee of Agriculture for the county in which they reside.

Copies of the illustrated School Prospectus may be obtained free of charge from the Secretary of the County Committee of Agriculture, the local Instructor in Poultry-keeping, the Lady Superintendent, North-West School, Strabane, or direct from the Secretary, Ministry of Agriculture, Stormont.

FIFTEENTH EGG-LAYING TEST AT STORMONT.

The sixth period of four weeks ended on the 18th March, 1937, and on that date half of the total test period had been completed.

There was a definite increase in egg production during the sixth period, the flock average, in respect of the 144 pens of six pullets each, being 17.6 eggs per bird. The corresponding average for the previous period was 15.6 eggs per bird.

The total number of eggs laid during the period was 15,255, and of this number 14,061, or 92.2 per cent., were scoring eggs, i.e., super grade and first grade.

The highest sectional average egg production was in Section 4 (any breed other than White Wyandotte, White Leghorn, and Rhode Island Red), in which the birds averaged 19.4 eggs each. This Section comprises 13 pens of Light Sussex, 2 pens of Buff Rocks, and 1 pen of Welsummers. The White Wyandottes in Section 1, with a flock average of 18.2 eggs each, were the next best producers during the period.

Seven birds died during the period, and 28 since the test commenced. This is a mortality rate of 3.2 per cent. during the 24 weeks. The mortality rate during the corresponding 24 weeks of the previous test was 3.83 per cent.

The total number of eggs laid during the 24 weeks the test has been in progress was 76,291, which is a flock average of 88.3 eggs per bird. Omitting the records of the 28 birds which died, the average of the remainder is 90.6 eggs per bird, as compared with a similar average of 87.7 for the first six periods in the previous test.

The following are particulars of the leading pens in the various sections as at the end of the sixth period :—

SECTION 1. WHITE WYANDOTTES (OPEN). 28 pens.

Position.	No. of pen.	Name and Address of Owner.	No. of eggs laid during 24 weeks.				Score Value
			Super Grade	1st Grade	2nd Grade	Below 2nd Grade	
1	22	Mr. J. C. Stewart, Balloo, Killinchy, Co. Down.	477	195	36	4	672
2	10	Mrs. D. C. Gamble, Roan Lodge, Coalisland, Co. Tyrone.	363	266	21	1	629
3	3	Mrs. J. M. Brogden, Fernshaw, Dungannon, Co. Tyrone.	314	311	108	3	625
4	4	Mr. R. A. Copeland, Blackscull, Dromore, Co. Down.	334	271	79	3	605
5	13	Mrs. J. R. Jackson, Fort View, Coleraine, Co. Londonderry.	375	229	68	1	604

SECTION 2. WHITE LEGHORNS (OPEN). 13 pens.

1	39	Mr. J. Waugh, Ballyrickard, Kilwaughter, Larne, Co. Antrim.	332	246	17	3	578
2	33	Mrs. E. Johnston, Craigboy, Donaghadee, Co. Down.	423	109	18	—	532
3	35	Mr. W. D. Anderson, Ballyaugherty, Saintfield, Co. Down.	257	207	3	—	464

SECTION 3. RHODE ISLAND REDS (OPEN) 31 pens.

Position.	No. of pen.	Name and Address of Owner.	No. of eggs laid during 24 weeks. Super Grade	1st Grade	2nd Grade	Below 2nd Grade	Score Value
1	53	Miss J. A. Irwin, Mount Irwin, Tynan, Co. Armagh.	349	323	14	—	672
2	60	Mr. R. J. O'Hanlon, Violet Cottage, Unshinagh, Portadown, Co. Armagh.	351	242	27	1	593
3	62	Mrs. D. Patterson, Ballycastle Road, Coleraine, Co. Londonderry.	284	303	154	6	587
4	64	Mr. H. Ramsey, Sylvan Cottage, Gilnahirk, Belfast.	235	310	86	—	545
5	63	Mr. W. Patton, The Hill, Loughries, Newtownards, Co. Down.	376	148	20	—	524

SECTION 4. ANY OTHER PURE BREED (OPEN). 16 pens.

1	75	Mrs. M. Finlay, Langfield, Armoy, Co. Antrim. (Light Sussex.)	277	262	107	—	539
2	86	Mr. R. Holmes, Moneycarrie, Killykergan, Coleraine, Co. Londonderry. (Buff Rocks)	239	197	80	6	536
3	76	Mrs. H. Getty, Hillcrest, Newtownards Co. Down. (Light Sussex)	186	332	71	1	518

SECTION 5 (*a*). WHITE WYANDOTTES (STATION HOLDERS). 14 pens.

1	93	Mr. C. E. Crooke, The Rocks, Blaney, Enniskillen, Co. Fermanagh.	277	420	90	4	697
2	99	Mrs. M. Rodgers, Ballyginney, Dundrum, Co. Down.	480	192	58	2	672
3	91	Mr. W. A. Bell, Donaghanie, Beragh, Co. Tyrone.	269	382	96	3	651
4	95	Miss M. M'Allister, Turnpike House, Backnamullagh, Dromore, Co. Down.	200	409	145	3	609

SECTION 5 (*b*). WHITE LEGHORNS (STATION HOLDERS). 14 pens.

1	112	Mrs. M. Noble, Roundpark House, Killycramph, Lisnaskea, Co. Fermanagh.	178	282	51	2	460
2	105	Mrs. J. Brown, Gorsebank, Culcrum, Co. Antrim.	277	162	45	3	439
3	111	Mrs. J. Knox, Shanmullagh, Ederney, Co. Fermanagh.	232	203	8	1	435

SECTION 5 (*c*). RHODE ISLAND REDS (STATION HOLDERS). 20 pens.

Position	No. of pen.	Name and Address of Owner.	No. of eggs laid during 24 weeks.				Score value.
			Super Grade	1st Grade	2nd Grade	Below 2nd Grade	
1	117	Mrs. R. J. Dunn, Ballyskeagh, Artigarvan, Co. Tyrone.	350	297	27	—	647
2	122	Mrs. W. McCallum, Aldohil House, Newtownstewart, Co. Tyrone.	196	371	67	2	567
3	127	Mrs. H. McMaster, Little Ballymena, Broughshane, Co. Antrim.	415	133	14	2	548
4	116	Miss S. M. Donaghy, Hilden, Ballymoney, Co. Antrim.	315	225	15	—	539

SECTION 6. POULTRY CLUBS AND YOUNG FARMERS' CLUBS. 12 pens.

Position.	No. of pen.	Name and Address of Club.	No. of eggs laid in 24 weeks.				Score Value
			Super Grade	1st Grade	2nd Grade	Below 2nd Grade	
1	145	Saintfield Young Farmers' Club. Co. Down. (Rhode Island Red)s	258	246	73	2	504
2	135	Aghadowey Poultry Club, Co. Derry. (R.I.R.)	193	298	57	9	491
3	141	Crumlin Poultry Club, Co. Antrim. (White Wyandottes)	178	310	170	14	488

The "score value" means the total of the super grade and first grade eggs, that is, all the eggs of 2 oz. each and over in weight.

The leading pen of pullets in the entire test at the end of the sixth period was the pen of White Wyandottes entered in the Station-holders' Section by Mr. C. E. Crooke, The Rocks, Blaney, Enniskillen, County Fermanagh. Second place in the entire test was held conjointly by the following pens, each of which had the same score:—No. 22, entered by Mr. J. C. Stewart, Balloo, Killinchy, Co. Down, in Section 1; No. 53, entered by Miss J. A. Irwin, Mount Irwin, Tynan, Co. Armagh, in Section 3; and No. 99, entered by Mrs. M. Rodgers, Ballyginney, Dundrum, Co. Down, in Section 5 (a).

PRICES OF FEEDING STUFFS.

The following table shows the average retail prices per cwt. of Feeding Stuffs at 1st April, 1937, with comparative figures for the corresponding date in 1936.

	1937.					1936.				
	Price per cwt.	Protein equivalent	Price per unit of protein equivalent	Starch equivalent	Price per unit of starch equivalent	Price per cwt.	Protein equivalent	Price per unit of protein equivalent	Starch equivalent	Price per unit of starch equivalent
STARCHY FOODS:	s. d.		s. d.		s. d.	s. d.		s. d.		s. d.
Maize (whole)	7 3½	6.8	21 5½	81.5	1 9½	4 11	6.8	14 5	81.5	1 2½
Maize Meal	7 8	6.8	22 6½	81.5	1 10½	5 4½	6.8	15 9½	81.5	1 4
Bran, Red	9 5½	10.0	18 11	45.3	4 2	7 1	10.0	14 2	45.3	3 1½
Bran, White	10 4½	10.0	20 9	45.3	4 7	8 6	10.0	17 0	45.3	3 9
Pollard, Brown	9 4½	11.0	17 0½	71.2	2 7½	7 4	11.0	13 4	71.2	2 1
Pollard, White	10 3	11.0	18 7½	71.2	2 10½	8 3	11.0	15 0	71.2	2 4
Barley Meal	10 5½	6.2	33 9	69.7	3 0	6 11	6.2	22 4	69.7	2 0
Oats (Whole)	8 4	7.6	21 11	60.0	2 9¼	6 6	7.6	17 1	60.0	2 2
Wheat (Whole)	10 7½	9.6	22 2	72.0	2 11½	7 10	9.6	16 4	72.0	2 2
PROTEIN FOODS:										
Linseed Cake, home-made ..	11 7½	25.0	9 4	71.8	3 3	10 3	25.0	8 2½	71.8	2 10
Linseed Cake, foreign	11 1	25.0	8 10½	71.8	3 1	9 5	25.0	7 6	71.8	2 7½
Linseed Cake Meal	11 4	25.0	9 1	72.8	3 1	9 7	25.0	7 8	72.8	2 7½
Cotton Cake, decorticated ..	10 4	35.0	5 11	71.2	2 11	9 0	35.0	5 2	71.2	2 6
Earth Nut Cake, decorticated ..	10 3½	41.0	5 0¼	73.0	2 10	8 8¼	41.0	4 3	73.0	2 5
Soya Bean Meal (extracted) ..	10 11	38.0	5 9	64.0	3 5	9 2	38.0	4 10	64.0	2 10½
Fish Meal (60% protein) ..	16 1	53.0	6 1	58.9	5 5½	15 4½	53.0	5 9½	58.9	5 3
Meat and Bone Meal (40% protein)	11 0	36.2	6 1	44.0	5 0	9 4	36.2	5 2	44.0	4 3
Meat Meal (60% protein) ..	15 8½	54.9	5 8¾	61.3	5 1½	14 1	54.9	5 1½	61.3	4 7
OTHER FEEDING STUFFS:										
Linseed, whole	17 0	19.0	17 11	119.2	2 10	15 4	19.0	16 2	119.2	2 7
Brewers' Grains (dried) ..	7 6	13.0	11 6½	50.3	3 0	6 6	13.0	10 0	50.3	2 7
Palm Nut Cake	9 1½	17.0	10 9	70.2	2 7	7 11	17.0	6 11½	70.2	1 8
Palm Nut Meal	9 4	17.0	11 0	78.0	2 5	8 1	17.0	9 6	78.0	2 1
Potatoes	4 2¼	0.6	139 7	18.0	4 8	3 9	0.6	125 0	18.0	4 2
Oat Straw	2 5½	0.9	54 7½	20.0	2 5½	2 5	0.9	53 8¼	20.0	2 5
Meadow Hay	3 0	4.6	13 0½	37.0	1 7½	2 6¾	4.6	11 2	37.0	1 4½
Turnips	0 11½	0.7	27 4½	7.0	2 9	0 8½	0.7	20 3	7.0	2 0

One of the objects of the foregoing table is to guide farmers in the economic purchase of feeding stuffs.

Ignoring their mineral content, the valuable constituents of any feeding stuff, whether home-grown or purchased, consist of:—

(1) Carbohydrates—a group of substances which include materials such as starch, sugar, etc. They supply heat or energy to the animal, and the surplus is stored by the animal as fat.

(2) Oil—which also provides heat or energy, the surplus being stored as fat. For this purpose oil is approximately 2½ times as valuable as the carbohydrates, but its presence in the ration in excessive quantities may lower the digestibility of the ration and cause digestive troubles.

(3) Protein—The group of bodies termed protein or albuminoids contain nitrogen. Protein is the only ingredient of a feeding stuff which can produce flesh or muscle, and hence its special importance.

All animals require a certain amount of each of the above constituents, but the relative amounts depend upon the class of stock. Thus, for example, a two-year-old fattening bullock requires a relatively small amount of protein (flesh forming material). Its ration should consist mainly of foods rich in carbohydrates, i.e., fat producing substances. On the other hand, a dairy cow is producing milk, which is a substance rich in protein, and as the protein, that is flesh forming material in milk, can only be derived from the protein in the food, the ration for the dairy cow must contain considerably more protein than that for the fattening bullock.

There are very wide differences in the composition of feeding stuffs, both home grown and purchased. Some, such as oats and maize, are rich in carbohydrates, and, therefore, particularly valuable for fattening purposes, whilst others, such as decorticated cotton cake, earthnut cake and linseed cake, are rich in protein, and are chiefly valuable for their flesh and milk-producing properties.

In the following table the composition of some of the more commonly used feeding stuffs is shown:—

PERCENTAGE COMPOSITION.

	Water.	Protein.	Oil.	Carbohydrates.
Turnips (Swede)	88	1	0.2	9
Potatoes	75	2	0.1	21
Oat Straw	14	4	2	37
Meadow Hay	10	10	3	45
Pasture Grass	80	3.5	0.8	10
Cabbage	89	1.5	0.5	8
Fattening Foods :				
Oats	13	9	6	60
Maize Meal	12	10	4	70
Barley Meal	13	12	2	66
Flesh Forming Foods :				
Linseed Cake	11	30	10	35
Decorticated Cotton Cake	9	40	9	26

The farmer frequently asks what is the cheapest feeding stuff to buy. It is, however, often very difficult to give a direct answer. Much depends upon what the feeding stuff is required for, whether for fattening or milk production. Again, maize and oats are essentially fattening foods, whilst decorticated cotton cake is a flesh-forming food, and it would be just as futile to use the cost per ton to compare their values as it would be to use the cost per ton to compare the values of, say, sulphate of ammonia and superphosphate.

Foods of similar composition can, however, be compared, and it is possible for the enterprising farmer to effect considerable economies, not only in the use of home-grown feeding stuffs, but particularly in the purchase of concentrated feeding stuffs, by studying the market prices.

The starch equivalent figure is a measure of the energy, heat or fat producing value of the feeding stuff, and shows the number of pounds of starch which would be required to give the same heat or energy as 100 lb. of the feeding stuff. For example, the table on page 38 states that the starch equivalent of maize meal is 81½, or, in other words, 100 lb. of maize meal will provide as much heat or energy as 81½ lb. of pure starch.

The protein equivalent figure shows the number of pounds of digestible flesh or muscle producing material in 100 lb. of each of the feeding stuffs listed.

PRICES OF FERTILISERS.

The following table shows the ranges of retail cash prices of fertilisers per ton at 1st April, 1937 :—

	£ s. d.	£ s. d.	Cost of unit of fertilising ingredient at average of range of prices shown.		
Nitrogenous Manures			Nitrogen.	Phos. Acid	Potash
Nitrate of Soda (15%N.)	7 15 0	to 9 0 0	11/2		
Sulphate of Ammonia (20.6%N.)	7 10 0	,, 8 5 0	7/7¾		
Nitro Chalk (15.5%N.)	7 10 0	,, 9 0 0	10/7¾		
Phosphatic Manures					
Superphosphate (16% S.P.A.)	3 10 0	,, 4 0 0		4/8¼	
Semsol (5% S.P.A. 15½% P.A.)	3 0 0	,, 3 12 6		3/2¾	
Basic Slag (18% P.A.)	3 15 0	,, 4 0 0		4/3¾	
Gafsa Rock Phosphate (26% P.A.)	2 15 0	,, 3 5 0		2/3¾	
Potash Manures					
Kainit (14% P.)	3 0 0	,, 3 15 0			4/9¾
Potash Salts (20% P.)	4 0 0	,, 4 15 0			4/4½
Potash Salts (30% P.)	5 0 0	,, 6 0 0			3/8
Muriate of Potash (50% P.)	8 0 0	,, 9 0 0			3/4¾
Agricultural Salt	1 10 0	,, 3 10 0			

Abbreviations:—N=Nitrogen. S.P.A.=Soluble Phosphoric Acid. P.A.=Phosphoric Acid P.=Potash.

The cost of the unit of fertilising ingredient is determined by dividing the price per ton at which the manure is offered by the percentage of the ingredient contained in the manure, and this method of determining values is the only sound basis on which two grades of a manure which supply the same fertilising ingredient can be compared. The price per ton is not a reliable guide as to whether or not a particular manure is good value for money. For example, in the table of prices it is seen that the average of the range of prices for 14% Kainit is £3 7s. 6d. per ton, and for 30% Potash Salts £5 10s. 0d. per ton, and it might be concluded that the Kainit was the better value for money. This is not so. The 30% Potash Salts contains more than twice as much Potash as the Kainit, and is, therefore, a cheaper source of potash when the price is even double that at which the Kainit is offered. The cost of a unit of potash in the 30% Potash Salts is seen to be only 3s. 8d., wheras the cost of a unit of potash in Kainit is 4s. 9¾d. At the prices ruling for these manures, therefore, 30% Potash Salts is better value for money than Kainit. Similarly, it is seen that at the prices prevailing Gafsa Rock Phosphate is a cheaper source of Phosphoric Acid than Basic Slag, and that of the Nitrogenous manures Sulphate of Ammonia is the cheapest source of Nitrogen.

In connection with the costs of the units of Phosphoric Acid, as shown in the table on page 40, it should be noted that in the case of Superphosphate, the cost is that of a unit of Soluble Phosphoric Acid; whereas in the cases of Basic Slag and Gafsa Rock Phosphate, the figures represent the cost of a unit of insoluble phosphoric acid in each, and in the case of Semsol, the cost of the unit of fertilising ingredient is in respect of a mixture containing 15½% insoluble phosphoric acid and 5% soluble phosphoric acid. It would not, therefore, be correct to compare the unit price of the phosphoric acid in Superphosphate with those of the phosphoric acid in the other three.

PRICES OF FAT STOCK.

The following were the average prices per live cwt. of bullocks and heifers, sold at Belfast Auction Marts during each of the five weeks ended 30th March, 1937:—

Week ended.	Bullocks.	Heifers.
	s. d.	s. d.
2nd March ...	35 9 ...	35 0
9th March ...	35 3 ...	35 3
16th March ...	36 3 ...	36 0
23rd March ...	37 0 ...	36 3
30th March ...	38 9 ...	38 6

PRICES OF AGRICULTURAL SEEDS.

The following table shows the average retail cash prices of seeds at 1st April, 1937, with comparative figures for the corresponding date in 1936 and 1935:—

	1937	1936	1935
Corn (Seed) :	s. d.	s. d.	s. d.
Wheat (Irish grown) .. .. per cwt.	11 0	8 6	9 0
,, (imported) .. .. ,,	15 0	12 0	11 4
Oats (Irish grown) .. .. ,,	10 2	7 4	7 8
,, (imported) .. .. .. ,,	13 6	9 6	10 0
Barley (Irish grown) .. .. ,,	12 1	8 11	9 11
,, (imported) .. .. ,,	14 8	11 0	11 3
Root and Green Crops (Seed) :			
Turnips (Swede) .. .. .. per lb.	2 8	1 11	2 6
,, (Aberdeen) .. .. ,,	1 8	1 5	1 6
Mangels .. .. .. ,,	1 6	1 7	1 6
Carrots .. .. .. ,,	4 0	4 10	5 3
Parsnips .. .. .. ,,	1 7½	2 7	1 5
Rape .. .. .. ,,	0 7	0 7	0 7
Clover Seeds :			
Broad Red .. .. .. ,,	1 0½	0 11	1 0
Late-flowering Red .. .. ,,	1 8		
White .. .. .. ,,	1 3½	1 1	1 1
Wild White (Kentish) .. .. ,,	8 0	3 11	4 10
Alsike .. .. .. ,,	1 3	1 5	1 6
Flax Seed :			
Commercial Varieties—			
Dutch .. per bag of 13 to 14 stones.	43 9	45 9	47 6
Pernau .. ,,	47 6	46 0	52 8
Riga .. .. ,,	42 0	46 0	48 9
Pure Line Blue-Flowering Varieties—			
Stormont Gossamer .. .. per cwt.	75 0	70 0	—
Stormont Cirrus .. .. ,,	75 0	75 0	—
Liral Crown .. .. .. ,,	75 0	73 9	—
Liral Dominion .. .. ,,	75 0	73 0	—
Liral Monarch .. .. ,,	75 0	72 6	—
J. W. S. .. .. ,,	43 4	66 3	67 6
White-Flowering Concurrent .. ,,	40 4	63 4	—
Grass Seed :			
Irish Perennial 28 lb. to bushel. .. per bushel	7 3	6 2	10 1
26 ,, ,, .. ,,	6 0	5 8	10 0
Scots. Perennial 28 lb. to bushel. .. ,,	8 8	7 3	10 11
26 ,, ,, .. ,,	8 0	6 8	10 6
Irish Italian 22 ,, ,, .. ,,	5 2	5 3	9 11
French Italian 22 ,, ,, .. ,,	6 6	6 5	10 8
Cocksfoot .. .. .. per lb.	0 8½	0 6	0 8
Meadow Fescue .. .. .. ,,	0 10	0 7	1 3
Timothy .. .. .. ,,	0 7	0 6	1 1
Crested Dogstail .. .. .. ,,	1 9	—	—
Rough-Stalked Meadow grass .. .. ,,	2 1	—	—
Potatoes :			
Epicure .. .. .. per cwt.	6 9	5 0	3 9
May Queen .. .. .. ,,	10 0	13 0	6 8
British Queen .. .. .. ,,	7 0	5 9	3 8
Arran Victory .. .. .. ,,	4 10	4 10½	2 8
Kerr's Pink .. .. .. ,,	4 11	4 7	2 6
Up-to-Date .. .. .. ,,	4 6	4 6	2 3

PRICES OF LIVE STOCK.

Average Prices of Live Stock at Fairs during the month of March, 1937.

Date	Fair	Calves (under 9 months)	Store Cattle	Fat Cattle (18 months and over)	Springers		Milch Cows	Fat Lambs (under 12 months old)	Fat Sheep (over 2 years old)	Young Pigs
					Cows	Heifers				
		Per head £ s.	Per cwt. Live weight.	Per cwt. Live wgt.	Per head £ s.	Per head £ s.	Per head £ s.	Per head £ s.	Per head £ s.	Per head £ s.
2	Omagh	5 10	32/– to 35/–	31/6	14 10	14 0	14 0	*1 18	*1 17/6	—
3	Londonderry ...	—	27/– to 34/–	—	15 0	13 0	—	—	—	1 5
3	Rathfriland	5 5/3	32/– to 35/–	33/–	18 0	16 0	16 10	†1 0	‡2 0 †1 6/3	1 4/9
4	Ballymoney... ...	5 14/6	28/3 to 34/3	32/–	16 0	14 0	13 5	*1 5	—	1 7/9
4	Strabane	5 0	34/– to 36/–	32/6	14 0	13 10	—	—	—	—
5	Moy	—	28/– to 34/–	33/–	16 7/6	13 15	17 7/6	—	—	—
8	Irvinestown ...	5 12/6	31/– to 34/–	31/–	—	13 10	12 0	*1 15	—	1 7/9
8	Limavady	—	27/– to 34/6	—	15 10	—	—	—	—	1 6
10	Crossgar	—	31/– to 33/–	—	16 0	—	—	—	—	1 15
10	Enniskillen ...	4 15/6	28/– to 34/–	32/6	13 10	11 10	13 10	—	—	1 10
12	Ballygawley ...	—	27/–	—	—	—	—	—	—	1 7/6
15	Camlough	4 15	23/6 to 31/–	32/6	16 10	15 0	13 10	—	—	—
17	Lisnaskea	4 15	27/– to 32/–	32/–	14 0	13 10	13 0	—	—	1 10
18	Ballynahinch ...	—	30/– to 33/–	—	16 10	15 0	14 10	—	—	1 15
20	Portadown	4 15	30/– to 35/–	34/–	16 0	14 0	15 0	—	—	1 10
22	Fintona	5 15/3	36/– to 38/–	33/–	16 0	15 0	14 0	—	*2 0	1 10
22	Moneymore ...	5 1/6	30/6 to 40/–	34/3	16 15	14 10	—	*2 12/6	*2 7/6	1 7
25	Antrim	—	32/– to 37/–	34/–	17 0	14 7/6	—	—	—	1 10
26	Castlederg	—	32/6 to 34/6	34/–	13 0	—	—	*1 15	*1 16	1 8
26	Killylea	—	28/– to 34/6	34/–	16 0	—	15 0	—	*1 17/6	—
27	Ballymena	6 19/9	25/– to 37/–	—	21 10	21 10	21 0	—	—	1 11

* Downs and Cross. ‡ Long Wools. † Mountain.

SHIPMENTS OF LIVE STOCK.

Statement showing the Shipments of Live Stock from Northern Ireland Ports during the following periods:—Months of March, 1937, February, 1937, March, 1936. Three months ended 31st March, 1937, and 31st March, 1936.

PORTS OF :—	CATTLE.						SHEEP.				PIGS.			
	Fat	Stores	Milch Cows	Springers.	Calves	Total	Fat	Stores	Lambs	Total	Fat	Stores	Total	Horses
Belfast	7,363	9,022	1,083	45	37	17,550	3,342	—	66	3,408	6,944	130	7,074	149
Larne	—	2,423	—	—	—	2,423	—	—	—	—	2,786	282	3,068	29
Londonderry ...	382	9,795	10	24	328	10,539	710	—	—	710	614	—	614	2
Newry	34	170	—	—	—	204	—	—	—	—	—	—	—	—
Total, March, 1937 ...	7,779	21,410	1,093	69	365	30,716	4,052	—	66	4,118	10,344	412	10,756	180
Total, February, 1937 ...	7,876	12,899	1,005	60	313	22,153	4,895	—	—	4,895	11,790	172	11,962	146
Total, March, 1936 ...	7,562	17,441	1,036	65	2,145	28,249	771	—	15	786	3,606	—	3,606	387
Total, Three months ended 31st March, 1937 ...	23,118	44,281	3,103	202	802	71,506	15,499	—	66	15,565	32,696	752	33,448	494
Total, Three months ended 31st March, 1936 ...	26,259	43,954	3,012	213	4,548	77,986	5,518	—	15	5,533	13,133	67	13,200	1,010

IMPORTS AND EXPORTS.

Table showing the Imports and Exports through Northern Ireland ports of certain Agricultural Products during the month of February, 1937, and the two months ended 28th February, 1937, with comparative figures for the corresponding periods in 1936. This information also includes trade with the Irish Free State across the land boundary.

(These figures are supplied through the courtesy of the Ministry of Commerce and are subject to revision.)

COMMODITY.	IMPORTS.				EXPORTS.			
	Month ended 28th Feb.	Month ended 29th Feb.	Two months ended 28th Feb.	Two months ended 29th Feb.	Month ended 28th Feb.	Month ended 29th Feb.	Two months ended 28th Feb.	Two months ended 29th Feb.
	1937	1936	1937	1936	1937	1936	1937	1936
Bacon ... ... cwt.	1,949	2,783	3,784	6,811	31,651	23,048	63,980	63,794
Hams ... ... cwt.	1,571	1,802	2,910	3,771	8,865	12,451	19,471	26,546
Pork ... ... cwt.	681	1,505	1,535	2,933	3,049	5,090	5,536	7,867
Butter ... ... cwt.	13,381	12,881	27,089	31,583	137	221	302	455
Eggs ... ... gt. hds.	38,880	72,445	68,639	115,729	145,990	182,710	239,379	294,201
Oat Products (inc. Oatmeal)cwt.	1,836	1,699	3,483	5,129	8,780	7,569	20,529	21,943
Potatoes ... ... tons	697	1,523	1,198	2,719	*23,074	*25,384	*48,835	*54,753
Poultry ... ... cwt.	453	730	896	1,257	25,062	9,580	61,828	66,103
Grass Seeds ... cwt.	1,598	1,733	2,884	3,248	40,054	54,111	99,769	101,350

*These figures represent the quantities of potatoes inspected for shipment by the Ministry.

There were no imports of oats direct from abroad in February, 1937, and the corresponding month of last year.

Table showing the numbers of Live Stock (1) exposed for sale, and (2) sold at 19 fairs in Northern Ireland during the months of March, 1936, February, 1937, and March, 1937.

Description of Live Stock.	March, 1936.		February, 1937.		March, 1937.	
	Number exposed for sale.	Number sold.	Number exposed for sale.	Number sold.	Number exposed for sale.	Number sold.
Store Cattle ...	7,159	5,316	5,737	4,431	6,046	4,618
Fat Cattle ...	1,595	1,452	1,634	1,469	1,347	1,209
Dairy Cattle ...	1,126	834	998	740	890	663
Sheep ...	374	235	291	189	218	151
Lambs ...	180	123	120	75	65	55
Young Pigs ...	2,863	2,445	2,721	2,070	2,360	1,981

Trade in livestock at fairs held during March was interrupted by the snow blizzard, and the offerings generally remained small for the time of the year. Business all over, however, improved, more especially in the latter half of the month, when prices of store and fat cattle reached further high levels, and there was a good inquiry for fat sheep and spring lambs at dearer rates.

In the store cattle end the turnouts last month were again under average, and there was a well-sustained demand for all classes. Strong stores in forward condition, six-quarter olds, and small cattle were in keen request, and with supplies being unequal to requirements prices ruled dearer. The smaller offerings of fat cattle also experienced a much improved trade, and clearances were readily effected at appreciably higher prices. In fact, prices for store and fat cattle have reached higher levels than have been attained for many years past.

Supplies of dairy cattle were smaller than usual, and the majority of the animals were of inferior quality. Good young cows and heifers remained scarce and in firm request at late rates, but for rough and inferior stock sales were harder to effect at easier prices. There were even smaller supplies of sheep and lambs than in February, and the local demand absorbed the very short supplies of fat sheep fit for butchering and early spring lambs, at very satisfactory prices. Supplies of young pigs declined further on the month, and although trade fluctuated slightly between the centres, as a general rule it was only moderate at almost unchanged prices. Sows for breeding remained a very small trade at fairs, and only the best types changed ownership and quotations were little altered.

10th April, 1937.

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" 2. Improvement of Farm Poultry.
" 3. Feeding for Egg Production.
" 4. Marketing of Eggs.
" 5. The Dishorning of Calves.
" 6. The Packing of Apples in Standard Boxes
" 7. Potato Trials
" 8. Seed Testing for Farmers.
" 9. The Renovation of Orchards.
" 10. Fruit Tree Pests—Capsid Bugs.
" 11. Fruit Tree Pests—Aphides and Apple Sucker.
" 12. Fruit Tree Pests—Caterpillars
" 13 Contagious Abortion in Cattle.
" 14. Cheese-making on the Farm.
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" 17. Home Bottling of Fruits and Vegetables.
" 18. Marketing of Dead Poultry.
" 19. How to Feed Linseed.
" 20. The Hatching and Rearing of Chickens.
" 21. The Uses and Advantages of Portable Poultry Houses.
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" 23. The Handling and Care of Wool.
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" 27. How to Keep Eggs Clean
" 28. The Construction of a Laying House for Poultry.
" 29. The Selection and Breeding of Laying Hens.
" 31. Coccidiosis in Poultry
" 32. Roup of Poultry (Fowl Pox).
" 33. Spraying Calendar for Apple Orchards.
" 34. The Pruning of Apple Trees.
" 35 The Fattening of Pigs.
" 36. Advantages of Milk Recording.
" 37. The Raising and Fattening of Turkeys.
" 38. The Destruction of Charlock.
" 39. The Production of Clean Milk.
" 40. The Laying Down and Management of Temporary Pastures.
" 41. Blackleg, Blackquarter or Quarterill.
" 42. The Purchase of Balanced Rations for Dairy Cows.
" 43. Tuberculosis in Poultry.
No. 44. Results of Crop Experiments, 1935.
" 45. The Breeding and Rearing of Pigs.
" 46. Hints for Winter Egg Production.
" 47. The Care and Management of Sheep.
" 49. American Gooseberry Mildew.
" 50. Potato Blight.
" 51. Butter-making on the Farm.
" 52. Gapes in Chickens
" 54 The Breeding and Rearing of Calves.
" 55. Destruction of Ragwort or Benweed.
" 56 Identification of Egg Supplies.
" 57. How to have Eggs of First Quality.
" 58. How the Fertilisers and Feeding Stuffs Act benefits the Farmer.
" 59. Bacillary White Diarrhoea (Pullorum Disease).
" 60. Advantages of Winter Agricultural Classes.
" 61. The Care and Management of Breeding Bulls.
" 62. The Production of Timber on the Farm.
" 63. Sheep—Castration, Docking, Foot-Rot and Care of Feet.
" 64 The Destruction of Warble Fly Maggots in Cattle.
" 65. The Packing of Apples in Barrels
" 66. Seed Testing Facilities for Traders.
" 67. The Cultivation of Vegetables.
" 68. The Cultivation of Strawberries.
" 69. The Construction of Piggeries
" 70. Ringworm.
" 71. The Cultivation of Raspberries.
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" 73. The Propagation and Maintenance of Healthy Stocks of Potatoes.
" 74. New Pure Strains of Flax.
" 75. Pig Production and the Pigs Marketing Scheme.
" 76. Acarine (Isle of Wight) Disease of Bees.
" 77. Licensing of Milk Producers and Distributors.
" 78. Graded Milk.
" 79. The Picking and Storing of Apples.
" 80. Hoose or Husk in Farm Stock.
" 81. The Construction of Cow Houses.
" 82 White Scour in Calves.
" 83. The Care, Management and Feeding of the Poultry Breeding Stock.

Any of the above leaflets may be obtained free of charge and post free on application to the Secretary, Ministry of Agriculture, Stormont, Belfast.

CIRCULARS.

No. 1. Phosphatic Fertilisers.
" 5. Why Pay a Tax on the Horns of Cattle ?
" 8. Basic Slag.
" 9. Smut in Oats.
" 10. Purchase of Fertilisers and Feeding Stuffs.
" 11. Fertilisers and Feeding Stuffs Act—General Summary.
" 12. The Treatment of Liver Fluke.
" 13. The ox-Warble Fly
" 306. Fertilisers and Feeding Stuffs Act, 1926—Revision of Regulations.

MISCELLANEOUS PUBLICATIONS

Store Cattle.
Reports on Egg-Laying Tests.
Crop Insurance.
List of Growers of Certified Crops of Immune Varieties of Potatoes.
List of Growers of Certified Crops of Non-Immune Varieties of Potatoes.
The Ministry's Monthly Report.
Register of Premium Stallions.
Guide to the Live Stock Breeding Act (Northern Ireland), 1922.
Guide to the Marketing of Fruit Act (Northern Ireland), 1932.

Any of the above publications may be obtained free of charge and post free on application to the Secretary, Ministry of Agriculture, Stormont, Belfast.

The following publications can be obtained from His Majesty's Stationery Office, 80 Chichester Street, Belfast, at the prices stated :—

(1) The Annual Report of the Ministry of Agriculture for Northern Ireland. Price 2/6 net.
(2) Annual Report upon the Agricultural Statistics of Northern Ireland. Price 2/- net.
(3) The Journal of the Ministry of Agriculture for Northern Ireland. Price 2/6 net.
(4) The Agricultural Output of Northern Ireland, 1925. Price 2/6 net.

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